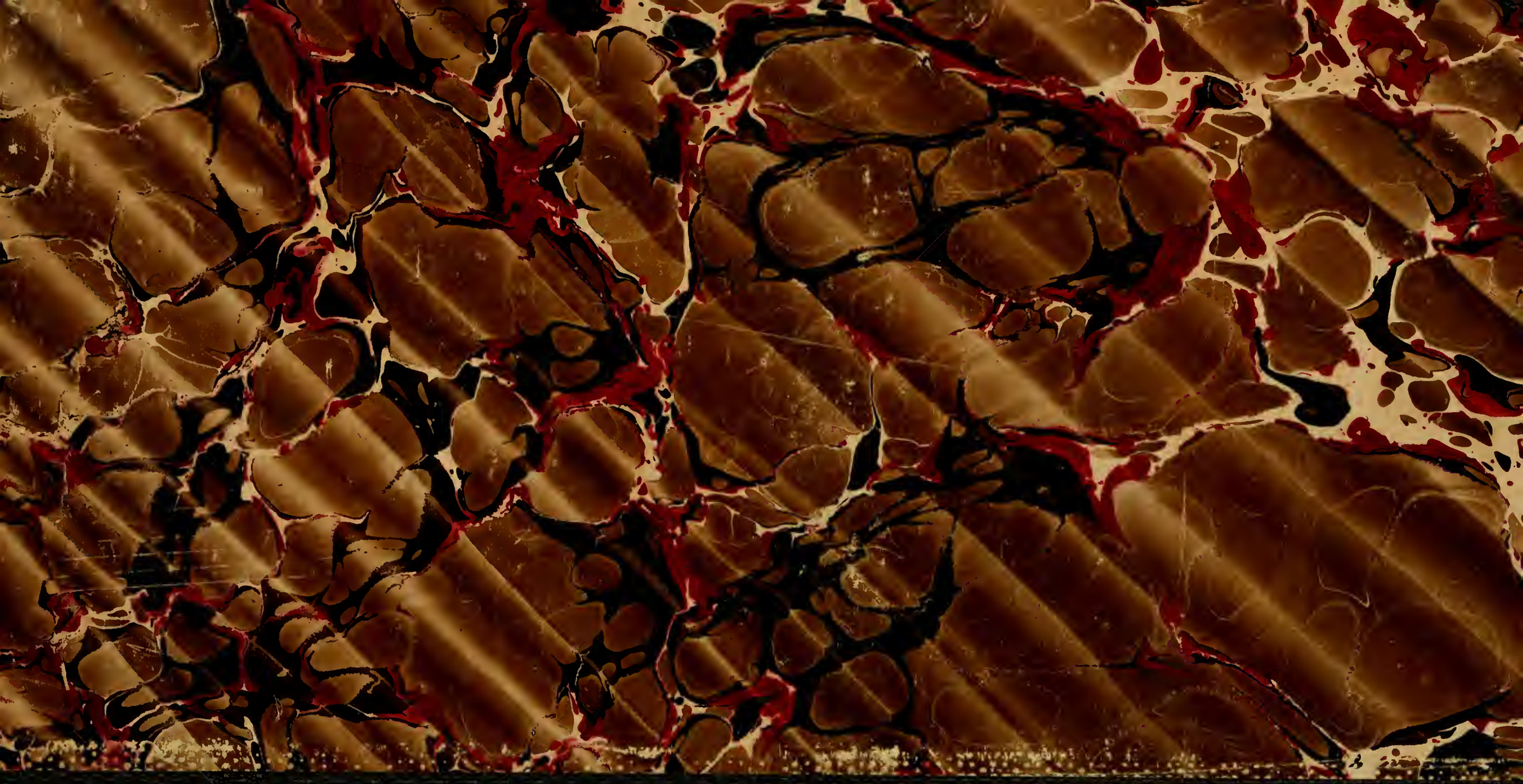

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No. 11,590

July 3, 1891 — April 23, 1895.

BULLETIN

OF THE

Scientific Laboratories

OF

DENISON UNIVERSITY.

VOLUME VII.

WITH ONE MAP.

EDITED BY

W. G. TIGHT, M. S.,

DEPARTMENT OF GEOLOGY AND NATURAL HISTORY.

GRANVILLE, OHIO, MARCH, 1892.

CATALOGUE

OF THE

PHANEROGAMS AND FERNS

OF

LICKING COUNTY, OHIO.

BY

HERBERT L. JONES.

PRESS OF GRANVILLE TIMES.
1892.

Introduction.

This catalogue has been published as a guide to the students of Botany in Licking County. If it tends to stimulate a further interest in our local flora it will have served its purpose. Much is given which is of little interest to any one outside of the county, but it was thought best to gather together the scattered notes on the distribution, times of flowering, relative abundance, etc. It is hoped that some one in the future may complete the work begun by publishing a complete flora of the county. Of necessity such a list as the following does not contain all of the species even in a limited district. Many of the townships have not even been visited, while an equal number have been only partially explored. Granville, St. Albans, and Newark townships have been the most thoroughly explored. The Licking River and Licking Reservoir have been visited frequently, but mostly during the months of July and August. Every effort has been taken to make the list of species as authentic as possible. All doubtful forms have been compared with the specimens in the Harvard Herbarium. The willows were identified by M. S. Bebb, Esq. and the sedges by Prof. W. C. Werner.

The author wishes to thank all of those who have contributed in any way to this catalogue.

Herbaria.

All the species herein given are represented by herbarium specimens. with the exception of three or four which are so marked. Unless otherwise designated the specimens are to be found in the author's herbarium. Specimens not in the author's herbarium are to be found in the following:

Herbarium of Dr. F. O. Jacobs, Columbus, O.
" " Prof. W. E Castle, Alexandria, O.
" " Prof. C. J. Herrick, Granville, O.
" " Prof. W. G. Tight, Granville, O.
" " Prof. W. C. Werner, Columbus, O.
" " Mr. W. H. Jones, Granville, O.
" " Mr. E. V. Wilcox, Columbus, O.
" " Denison University and Granville Public School.

Geology of Licking County.

The area of the county is 685 square miles. The surface in general is level in the western part, hilly and rugged in the eastern, while in the central part the hills are lower and much less rugged than in the eastern. The drainage is toward the southeast, the Licking river with its tributaries practically draining the entire county. The only large body of water is the Licking Reservoir, a part of which is in this county. Only a very few of the original swamps now remain. The two principal swamps are the Cranberry Marsh near Utica and Pigeon Swamp, in the southwestern part of the county. Taking up in greater detail the geological nature of the soil, etc., we find that in the western part of the county the soil is generally clay, with only a few exposures of rock, which is of a shaly nature. Along the streams we find a few deposits of the drift. In the central part the greatest diversity is to be found. The valleys are here the broadest, with alluvial deposits many feet in thickness. The hills are from a few feet to over an hundred in height. On the top of these the soil is a fine sand with the broken fragments of the native sandstone rock lying imbedded in it. The impurity of this sandstone makes the soil more fertile than it would otherwise be.

The river terraces are composed of glacial drift. This drift is generally composed of sand or gravel, the gravel being of a varied composition. Granite, diabase, diorite, schists, slates, and limestone are a few of its components. It is on these wooded terraces that the flora is the most varied. One hundred and twenty-five species have been collected from a space only forty feet square, (Maple Grove Cemetery, Granville.) In the eastern part the hills are still higher, the native rock being a coarse sandstone or sandstone conglomerate. This sandstone weathers very slowly. In consequence of this the soil is scant, the valleys narrow and in many places simply gorges. The strata of the county are referred to the Waverly and Carboniferous, the latter occurring only in the eastern part. The southern part is low and covered to a depth of many feet with an alluvial deposit. Formerly a greater part was covered by swamp.*

Altitudes of Different Points.

Hartford, 1160 feet.
Alexandria, 950 feet.
Granville, 906 feet, at depot.
Hebron, 885 feet.
Jacksontown, 1075 feet.
" 1235 feet, hill south of town.
Newark, 791 feet.

Rainfall, Temperature, Etc.

The meteorological observations have been so scattered that it is impossible to give more than approximate data.

The rainfall averages about 40 inches a year. The least which has been recorded, is 24.89 in 1856, the greatest 61.51 in 1852. The average of the different months is about the same.

The highest temperature recorded is 94.5 deg.; the lowest temperature recorded is 18 deg. below zero.

The prevailing winds are from the west.

The 40th parallel of latitude runs through the southern portion of the county.

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*Only a general sketch is here given of the main features of the geological structure of the county. A complete description has been given by Prof. C. L. Herrick, in the preceeding volumes of this Bulletin.

A List of the Worst Weeds.

In pastures—Cnicus lanceolatus Hoffin., Thistle. Vernonia altissima Nutt., Iron-weed. Verbena urticaefolia L., White Vervain. Verbena hastata L., Blue Vervain. Verbascum Thapsus L., Common Mullein. Daucus Carota L., Carrot. (In places.)

In lawns—Plantago major L., Common Plantain. Plantago lanceolata L., English Plantain. Nepeta Glechoma Benth., Ground Ivy.

In meadows—Erigeron annuus Pers., Fleabane. Erigeron strigosus Muhl. Daisy Fleabane. Erigeron Philadelphicus L., Common Fleabane. Rudbeckia hirta L., "Brown Eyed Susans." Chrysanthemum Leucanthemum L., Ox Eye Daisy, (in places).

In gardens—Portulaca oleracea L., Purslane. Abutilon Avicennae Gaertn., Velvet Leaf. Datura Stramonium L. Jamestown weed. Datura Fatula L., Purple Jamestown-weed. Rumex crispus L., Curled Dock.

In cultivated grounds—Convolvulus sepium L. var. Americanus Sims. Lychnis Githago Lam., Corn Cockle. Verbascum Blattaria L., Moth Mullein.

Dipsacus sylvestris Mill. Wild Teasel. Pastinaca Sativa. L., Parsnip. Heracleum lanatum Michx., Cow Parsnip. Melilotus alba Lam., Sweet Clover. Sisymbrium officinale Scop., Hedge Mustard. Brassica nigra Koch., Black Mustard Arctium Lappa L., Burdock. Urtica gracilis Art., Nettle, are the most troublesome in fence corners and moist situations.

Times of Flowering.

A record has been kept for the last three years of the plants which bloom late in the fall and early in the spring. The large per cent. of introduced species which blossom in the fall is noticeable, while the early spring plants are generally native.

The following figures are fairly accurate for the number which bloom in the vicinity of Granville:

In November,	44	species,	17	native,	27	introduced.
" December,	11	"	2	"	9	"
" January,	14	"	8	"	6	"
" February.	9	"	7	"	2	"
" March,	17	"	14	"	3	"

The number in flower before July 1st, is about 530. The number in flower during the "Spring Term" of Denison University is over 500. The number of so-called spring flowers found in blossom in the fall or early winter, 10.

Trees.

The number of woody plants is about 165. The number of trees (in the ordinary usage of the term) is about 88.

The ten most common trees are probably the following:

Fagus ferruginea Ait. Beech.
Acer saccharinum Wang. Sugar Maple.
Elmus Americana L. White Elm.
Fraxinus Americana L. White Ash.
Quercus alba L. White Oak.
" macrocarpa Michx. Bur Oak.
" rubra L. Red Oak.
" coccinea Wang. Scarlet Oak.
Castanea sativa Mill. var. Americana Watson. Chestnut.
Platanus occidentalis L. Sycamore, Buttonwood.

Locations of special botanical interest.

It is hoped that students of Botany will find it more easy to discover the rare plants of our county by the aid of the following table. The best botanizing localities known to the author are here given. The localities within easy access of Granville are first given and they are also given in greater detail. The numbers correspond to the numbers on the map which is to be found in the back part of the catalogue.

(1.) Arbutus Ridge. One mile southeast of Granville, near the railroad bridge over the Racoon Creek. It is also reached from Centreville Street by Clouse's Lane.

(2.) Spring Valley. One mile south of Granville, between Lancaster and Columbus roads but nearer, Columbus road. When this is referred to in the text, both the small swamp, which is near the opening of the valley, and the sides of the valley are meant.

(3.) Maple Grove Cemetery, Granville. The bank in the southeast corner next to the T. & O. C. R. R. is the portion which is of special interest. More species occur here than in any other portion of the county of ten times its area.

(4.) Everett's Swamp. Two miles west of Granville near the Worthington road a few rods south of the Worthington bridge.

(5.) The Gravel Pit. This is a local name given by the students to designate the bank which is situated two miles west of Granville on the T. & O. C. R. R. and about half a mile east of Clemons' Station. It is just north of the track at its first curve after leaving Granville.

(6.) Woods on the farms of M. J. Williams and S. J. Everett. These are located on the ridge which runs parallel to Racoon Creek and about a quarter of a mile south of it. They are about a mile and a half southwest of Granville and end about half a mile south of Station 4. Some of our rarest plants are to be found here.

(7.) Granger's Swamp. This is the largest body of water in Granville township. It is about two and a half miles northwest of Granville between Burg and Loudon Streets.

(8.) Woods about a half a mile northeast of the house of Mr. W. A. Castle. These woods are about two miles northwest of Alexandria. They contain several species which have not been found elsewhere.

(9.) Welsh Hills. These lie immediately north of Granville. All of the northeastern portion of the township is thus designated.

(10.) Woods now owned by Mrs. Roderick Jones. These lie about two miles northeast of Granville and directly north of the Fort Hill farm.

(11.) Goodrich's woods, College woods, Miller's Glen and woods north of Alligator Hill are of easy access to Granville and for general collecting are very good.

(12.) Spruce Hill. About three miles northeast of Granville on Brushy Fork road, about on the dividing line between Granville and Newton townships.

(13.) Pine Hill. One half mile due east from Vanattasburg, east bank of creek. Many rare species here.

(14.) Rain Rock or Raining Rock. In Eden township about twelve miles north of Newark.

(15.) Laurel Ridge. This can most easily be reached from Newark by going south on Second Street across the creek to Summit Street. The ridge is about a mile from the corner of Second and Summit. The continuation of Summit Street runs along its base.

(16.) A narrow gorge about a mile south of the above, is to be reached by going south on the continuation of Second Street, Newark, to the first fork in the road, taking the left hand road a second fork is soon met with. This time take the right hand road. About a half a mile from this is the gorge, on the left hand side of the road. This

is an important point, as many species found here have not been found elsewhere. It is the best point for ferns in the central part of the county.

(17.) Toboso or Black Hand. A small town on the B. & O. R. R., in the eastern part of the county. Red Rock, Black Hand Rock and the bluffs just opposite these contain many very rare species. The banks of the Licking River also afford some species not discovered elsewhere.

(18.) Licking Reservoir. A body of water about ten miles long and from half a mile to a mile wide. It is situated in Licking, Perry and Fairfield counties For convenience all species growing in the Reservoir are here listed, as it is impossible to tell on which side of the boundary lines the collecting has been done. The following parts of the Reservoir will be found to be about the best collecting places:

Lieb's Island, in the southern part of the New Reservoir.

Cranberry Marsh in the Old Reservoir, near the northern bank, about mid way between Lakeside and Avondale.

Many of the islands in the Old Reservoir are also very good collecting places.

Forms of Certain Species.

Lobelia cardinalis L. Flowers pure white. College Herbarium.

Oxalis violacea L. Flowers pure white.

Scutellaria pilosa Michx. Flowers pure white and some also delicately tinged with purple.

Trifolium pratense L. Flowers pure white, common.

Trifolium repens L. Flowers bright pink.

Monarda fistulosa L. White or delicate pink.

Silene Virginica L. Light pink.

Eupatorium purpureum L. Pure white.

Vernonia attissima Nutt. Pure white. This form has a very decided tendency to maintain itself, as the same field has contained white flowered specimens for many years.

Asclepias incarnata L. Pure white.

Rubus occidentalis L. Bright yellow fruit, common. This maintains itself year after year.

Rubus villosus Ait. Greenish white fruit. This form has also maintained itself for a number of years.

Nomenclature.

The sixth edition of Gray's Manual has been followed in all particulars. As this is the manual used by all the classes in Licking county any changes were considered unwise.

Map.

The map in the back part of the catalogue was prepared by Mr. Herbert A. Clark of Denison University. It will serve as a guide to localities mentioned above, the numbers referring to the corresponding numbers in the list of localities.

I. RANUNCULACEAE.

1. Clematis L.

1. C. Virginiana L. Common Virgin's Bower.

Creek banks, common. July 21, 1887; August 10, 1889; July 15, 1889.

2. C. Viorna L. Leather Flower.

Gravelly or sandy soil, somewhat rare. New Cemetery, Granville; roadside near Bald Hill, Newark. July 4, 1890; July 13, 1891.

2. Anemone Torun.

3. A. Virginiana L.

Shady places, common. July 15, 1890; July 6, 1891.

4. A. Pennsylvanica L.

Damp soil, especially meadows, common. May 28, 1887; June 24, 1888; July 9, 1889; June 12, 1891.

5. A. nemorosa L. Wind Flower.

Woods, common. May 4, 1888; April 22, 1889; April 30, 1891.

6. A. nemorosa L. Var. quinquefolia Gray.

Frequently occurs with type. May 2, 1891.

3. Hepatica Dill.

7. H. triloba Chaix.

Dry sandstone soil. Welsh Hills and eastern part of county. May 14, 1887; April 7, 1889; April 14, 1890; March 25, 1891.

8. H. acutiloba D C.

Gravelly soil. Central and western part of county. This species grows in moister situations than the last and, where the two are found on the same hillside, grows lower down. April 16, 1887; April 11, 1889; April 8, 1889; March 25, 1891.

4. Anemonella Spach.

9. A. thalictroides Spach. Rue Anemone.

Woods, very common. May 7, 1884; April 12, 1887; April 8, 1889; April 10, 1890; April 14, 1891.

5. Thalictrum Tourn.

10. T. dioicum L. Early Meadow Rue.

Rocky, wooded hillsides, common. May 20, 1884; April 30, 1888; April 8, 1889; April 21, 1891.

11. T. polygamum Muhl. Tall Meadow Rue.

Alluvial soil. Toboso. June 23, 1889; August 25, 1890; July 8, 1891.

12. T. purpurascens L. Purplish Meadow Rue.

Edge of woods, somewhat common. May 28, 1887; June 23, 1889; June 2, 1890; June 12, 1891.

6. Ranunculus Tourn.

13. R. circinatus Sibth. Stiff Water Crowfoot.

Water, two to five feet deep. Reservoir and canal. August 21, 1888; August 12, 1890; August 5, 1891.

14. R. aquatilis L. Var. trichophyllus Gray. Common White Water Crowfoot.

Same situations and localities as last. July 9, 1889; August 24, 1890; August 8, 1891.

15. R. ambigens Watson. Water Plantain Spearwort.

Swamps and damp woods. Granger's swamp, Granville. July 9, 1890.

16. R. abortivus L. Small Flowered Crowfoot.

Yards and fields, very common. May 5, 1887; April 30, 1888; April 15, 1889; May 10, 1890; April 16, 1891.

17. R. sceleratus L. Cursed Crowfoot.

Ditches and swamps, not common. Alexandria road, one half mile

west of Granville, base of Thorne's Hill May 10, 1890; May 19, 1891.

18. R. recurvatus Poir. Hooked Crowfoot.

Woods, common. May 11, 1887; May 11, 1889.

19. R. fascicularis Muhl. Early Crowfoot.

Rocky hillsides, rare. Pine Hill, Vanattasburg. April 25, 1891.

20. R. septentrionalis Poir.

Ditches and wet woods everywhere. Very confusing, because of variability in size and aspect. May 24, 1884; May 30, 1887; May 1, 1889; May 14, 1891.

21. R. Pennsylvanicus L. f. Bristly Crowfoot.

Damp soil, frequent. August 15, 1888; July 9, 1889; June 30, 1891.

22. R. *acris* L. Buttercups.

Fields, rare. Newark. Herbarium of Dr. F. O. Jacobs.

7. Caltha L.

23 C. palustris L. Marsh Marigold.

Swamps, common. May 13, 1884; April 16, 1886; April 20, 1889; April 14, 1891.

8. Aquilegia Tourn.

24. A. Canadensis L. Wild Columbine.

Woods, rocky, gravelly or rich soil, rare. Gravel Pit, between Granville and Alexandria; Reservoir, on the islands; on rocks at the ravine near Bald Hill, Newark. May 19, 1884; May 20, 1890.

9. Delphinium Tourn.

25. D. exaltatum Ait. Tall Larkspur.

Herbarium of Dr. F. O. Jacobs.

26. D. tricorne Michx. Dwarf Larkspur.

Gravelly soil, rare. New Cemetery, Granville, April 28, 1889.

27. D. *Ajacis* L.

Very sparingly escaped into waste places, hardly worthy of recognition here. August 20, 1891.

10. Cimicifuga L.

28. C. racemosa Nutt. Black Snakeroot.

Woods, very common. July 19, 1889; June 25, 1890; July 1, 1891.

11. Actaea L.

28. A. spicata L. var. ruba Ait. Red Baneberry.
Eastern part of county. Herbarium of Dr F. O. Jacobs.

29. A. alba Bigel. White Baneberry.
Woods, common. May 19, 1888; May 13, 1889.

12. Hydrastis Ellis.

30. H. Canadensis L. Golden Seal, Orange Root.
Deep, rich woods, rare. Spring Valley, Granville. May 11, 1887; May 8, 1889; April 30, 1891.

II. MAGNOLIACEAE.

13. Magnolia L.

31. M. acuminata L. Cucumber Tree.
Woods, rare. Welsh Hills. May 16, 1890; May 14, 1891.

14. Liriodendron L.

32. L. Tulipifera L. Tulip Tree.
Rich woods, common, especiaily in eastern part of the county. June 28, 1888; June 6, 1891.

III. ANONACEAE.

15. Asimina Adans.

33. A. triloba Dunal. Common Pawpaw
Woods, especially on hillsides, common. May 25, 1884; May 21, 1888; May 6, 1889, May 6, 1891.

IV. MENISPERMACEAE.

16. Menispermum L.

34. M. Canadense L. Moonseed.
Moist soil, especially creek banks, somewhat common. June 5, 1889; June 19, 1891.

V. BERBERIDACEAE.

17. Berberis L.

35. B. *vulgaris* L. Common Barberry.

This has escaped in one or two localities, but is rare. Mount Parnassus, Granville. May 18, 1891.

18. Caulophyllum Michx.

36. C. thalictroides Michx, Blue Cohosh, Pappoose Root.

Rich woods, somewhat rare. Gravel Pit, Goodrich's woods, M. J. Willlams' woods, Granville. May 7, 1887; May 1, 1888; April 26, 1890; April 21, 1891.

19. Jeffersonia Barton.

37. J diphylla Pers. Twin Leaf.

Eastern part of county. Dr F. O. Jacobs.

20. Podophyllum L.

38. P. peltatum L May Apple.

Rich woods, common. May 17, 1884; May 14, 1887; May 11, 1889; May 10, 1891.

VI. NYMPHAEACEAE.

21. Nelumbo Tourn.

39. N. lutea Pers. Yellow Nelumbo, Water Chinquapin.

Licking County Reservoir, growing in shallow water of both reservoirs. August 28, 1888; July 9, 1889; August 24, 1890; August 6, 1891.

22. Nymphaea Tourn.

40. N. odorata Ait. Sweet Scented Water Lily.

Licking Reservoir. August 28, 1888; July 9, 1889; June 6, 1890; August 8, 1891.

41. N. reniformis D C. Tuber Bearing Water Lily.

Licking Reservoir. July 9, 1889; August 24, 1890; August 8, 1891.

23. Nuphar Smitit.

42. N. advena Ait. f. Yellow Pond Lily.

Swamps, common. June 20, 1888; July 9, 1889; August 24, 1890; August 8, 1891.

VII. PAPAVERACEAE.

24. Sanguinaria Dill.

43. S. Canadensis L. Blood Root.

Woods, very common. April 20, 1887; April 8, 1889; April 13, 1891.

25. Chelidonium L

44 C *majus* L Celandine.

Fence corners, etc., common. May 23, 1884; May 10, 1887; May 24, 1889; May 13, 1890; August 10, 1891.

26. Papaver Tourn.

45. P. *somniferum* L. Comm on Poppy.

This species exists for a year or two in waste places, but is hardly worthy of a place in this flora.

27. Argemone L.

46. A. *Mexicana* L. Mexican Poppy.

Near Newark. Herbarium of Dr. F. O. Jacobs.

VIII. FUMARIACEAE.

28. Dicentra Borkh.

47. D. Cucullaria D C. Dutchman's Breeches.

Woods, common. April 17, 1887; April 16, 1889; April 18, 1890; April 16, 1891.

48. D. Canadensis D C. Squirrel Corn.

Woods, growing with the preceeding, but not so abundant. April 16, 1887; April 17, 1889.

29. Corydalis Vent.

49. C. flavula D C.

Eastern part of county. Herbarium of Dr. F. O. Jacobs.

IX. CRUCIFERAE.

30. Dentaria Tourn.

50. D. diphylla L.

Gravelly woods, somewhat rare, Arbutus Ridge. April 29, 1889; April 30, 1890; April 21, 1891.

51. D. laciniata Muhl. Toothwort. (Local name Crowfoot.) Woods, more abundant than preceeding and blossoming fully two weeks earlier. April 22, 1887; April 8, 1889; April 10, 1890; April 12, 1891.

31. Cardamine Tourn.

52. C. rhomboidea D C. Spring Cress.

Grassy banks of streams and around springs, common. April 30, 1884; May 10, 1887; May 11, 1889; May 20, 1890; April 30, 1891.

53. C. rhomboidea D C. var. purpurea Torr. Purple Water Cress.

Same situations as last, but much more common and blossoming about three weeks earlier. April 20, 1887; April 8, 1889; April 6, 1890; April 9, 1891.

54. C. hirsuta L. Small Bitter Cress.

Wet places everywhere. This species varies greatly at different places and so causes much confusion. May 11, 1889; May 15, 1890; April 29, 1891.

32. Arabis L.

55. A. hirsuta Scop.

Rocky situations, rare, southeast of Newark. June 4, 1890.

56. A. laevigata Poir.

Rocky hillsides, common, varies much in size and aspect according to situation. May 27, 1887; April 30, 1890; May 9, 1891.

57. A. Canadensis L. Sickle Pod.

Rocks, rare; ravine near Bald Hill, (Station 16.) June 10, 1890.

58. A. perfoliata Lam. Tower Mustard.

Roadsides, generally distributed; Alexandria, Newark, etc. June 8, 1888; May 29, 1889; June 14, 1890; May 26, 1891.

59. A. confinis Watson.

Rocky hillsides, rare; Lover's Lane, (Station 18.) June 19, 1891.

60. A. lyrata L.

Rocks, very rare; Red Rock, Toboso. July 15, 1891.

61. A. dentata Torr and Gray.

Creek banks, rather common. April 30, 1890; April 25, 1891.

33. Draba Dill.

62. D. *verna* L. Whitlow Grass.

Gravelly and sandy soil, common. April 4, 1887; April 8, 1889; January 6, 1890; February 20, 1891.

34. Nasturtium R. Br.

63. N, *officinale* R. Br. True Water Cress.

Small streams and ditches, common and becoming more abundant each year. June 5, 1887; June 4, 1890; July 8, 1891.

64. N. obtusum Nutt.

Rare. May 20, 1887; August 27, 1888.

65. N. palustre D C. Marsh Cress.

Wet meadows or swamps, common. June 24, 1889; July 15, 1890; August 31, 1891.

66. N. palustre D C. var. hispidum Gray.

Wet places, rare; Licking Reservoir. July 9, 1889; August 8, 1891.

67. N. lacustre Gray. Lake Cress.

Licking Reservoir, growing in all parts of the Reservoir, but nowhere very abundant. June 20, 1890; August 6, 1891.

68. N. *Armoracia* Fries. Horseradish.

Wet places; this plant has escaped to a few swamps around Granville and is very abundant in the shallow parts of the Old Reservoir.

35. Barbarea R. Br.

69. B. vulgaris R. Br. Yellow Rocket.

Fields and meadows, common. May 9, 1888; May 10, 1889; May 19, 1890; June 10, 1891.

36. Sisymbrium Tourn.

70. S. *officinale* Scop. Hedge Mustard.

Common, everywhere. May 11, 1889; December 1, 1889; June 26, 1890.

37. Thelypodium Endl.

71. T. pinnatifidum Watson.

Moist places; New Cemetery, Granville; Arbutus Ridge; more abundant in eastern part of the county. May 30, 1887; June 2, 1890; June 10, 1891.

38. Brassica Tourn.

72. B. *sinapistrum* Boiss.

Fields and roadsides, rare; Granville, along the T. & O. C. R. R. June 19, 1890; June 1, 1891.

73. B. *nigra* Koch. Black Mustard.

Common in waste places. August 5, 1887; July 3, 1888; July 17, 1889; May 20, 1890; June 1, 1891.

39. Capsella Medic.

74. C. *Bursa-pastoris* Moench. Shepherd's Purse.

Common everywhere. May 16, 1884; June 10, 1887; April 14, 1888; August 8, 1889; December 25, 1889; January 11, 1890; May 31, 1890; April 1, 1891.

40. Lepidium Tourn.

75. L. Virginicum L. Wild Peppergrass.

Common everywhere. June 20, 1888; July 2, 1889; December 25, 1889; January 6, 1890; June 3, 1890; July 15, 1891.

76. L. intermedium Gray.

A few specimens of this species were found along the T. & O. C. R. R. near Alexandria, by Mr. W. E. Castle, June 25, 1891.

41. Raphanus Tourn.

77. R. *sativus* L.

A number of specimens were found along the B. & O. R. R. and also along the banks of the Licking River near Toboso, apparently well established, July 31, 1891.

X. RESEDACEAE.

42. Reseda Tourn.

78. R. *luteola* L. Dyer's Weed.

At the foot of Laurel Ridge, Newark; established for a number of years. Herbariums of Dr. F. O. Jacobs and author. June 4, 1890; June 19, 1891.

XI. VIOLACEAE.

43. Viola Tourn.

79. V. palmata L.

Woods. May 26, 1888; May 11, 1889; May 9, 1891.

80. V. palmata L. var. cucullata Gray.

Common everywhere, growing in much more open places than the last and much the more common, especially in western part of county. May 19, 1884; April 22, 1887; April 8, 1889; May 14, 1890; April 19. 1891.

81. V. sagittata Ait. Arrow-leaved Violet.

Dry, rocky banks, rare; Pine Hill, Vanattasburg; Hanover. April 25, 1891.

82. V. blanda Willd. Sweet White Violet.

Moist woods and hillsides, rare; along the hillsides on Brushy Fork Road, Welsh Hills, especially Pine Hill in Newton Township. April 25, 1891.

83. V. pubescens Ait Downy Yellow Violet.

Woods, everywhere. May 8, 1884; April 22, 1887; May 1, 1889; April 17, 1891.

84. V. pubescens Ait. Var. scabriuscula Torr and Gray.

Woods. Herbariums of Dr. F. O. Jacobs and Prof. C. J. Herrick. April 22, 1887.

85. V. Canadensis L. Canada Violet.

Deep, rich woods, rare; Spring Valley and woods along ridge which runs parallel to Raccoon Creek, west of Granville. (Station 6.) May 1, 1889; May 14, 1891.

86. V. striata Ait. Pale Violet.

Common in woods and along the streams. May 12, 1887; May 6, 1889; May 6, 1890; April 25, 1891; September 2, 1891.

87. V. rostrata Pursh. Long-spurred Violet.

Rather common; dry woods. College woods and Welsh Hills. May 19, 1884; May 5, 1887; April 22, 1889; April 20, 1891.

44. Solea Spreng.

88. . S. concolor Ging. Green Violet.

I know of but one locality where this plant grows, that is on the gravel bank in the New Cemetery, Granville. May 23, 1884; May 30, 1887; May 24, 1889; May 18, 1891.

XII. CARYOPHYLLACEAE.

45. Dianthus L.

89. D. *Armeria* L. Deptford Pink.

Found along the roadsides around Granville and especially in south-eastern part of the township. June 30, 1890; June 19, 1891.

90. D. *barbatus* L. Sweet William.

This plant is frequently found in waste places, but is hardly worthy of a place in this list. May 28, 1890.

46. Saponaria L.

91. S. *officinalis* L. Soapwort.

Very common, especially along railroad tracks. July 20, 1889; July 15, 1890; July 1, 1891.

47. Silene L.

92. S. stellata Ait. Starry Campion.

Rocky hills, found only in eastern part of the county. July 18, 1890.

93. S. Virginica L. Fire Pink, Catch Fly.

Rocky hillsides, rather rare; Arbutus Ridge, bank on the edge of Everett's swamp. June 4, 1887; June 23, 1889; June 13, 1890; May 19, 1891. A form with much narrower leaves, much shorter stem, growing at Flint Ridge, blossoms about three weeks earlier than that growing at Granville.

94. S. antirrhina L. Sleepy Catchfly.

Dry, sandy soil, rather rare; New Cemetery, Granville; Red Rock, Toboso. June 19, 1890; June 6, 1891.

95. S. *Armeria* L. Sweet William Catchfly.

Escaped in a very few places, hardly deserving a place in this list. Denison University Herbarium. August 1, 1888.

48. Lychnis Tourn.

96. L. *Githago* Lam. Corn Cockle.

Wheat fields, very common. June 1, 1889; June 4, 1890;

49. Arenaria L.

97. A. *serpyllifolia* L. Thyme-leaved Sandwort.

Sandy fields, rather rare; New Cemetery, Granville; Laurel Ridge, Newark; on the locks along the canal. June 6, 1890; August 1, 1891.

50. Stellaria L.

98. S. *media* Smith. Common Chickweed.

Common everywhere. May 3, 1889; December 25, 1889; January 11, 1890; December 3, 1890; February 21, 1891; July 10, 1891.

99. S. pubera Michx. Great Chickweed.

This plant is given on the authority of Mr. W. E. Castle, May 6, 1889.

100. S. longifolia Muhl. Long-leaved Stitchwort.

Wet meadows, rare; Granger's swamp and a few swamps on the Welsh Hills. May 28, 1888; May 27, 1890; June 26, 1891.

51. Cerastium L.

101. C. *viscosum* L. Mouse-ear Chickweed.

Fields, common. August 24, 1888; December 25, 1889; February 1, 1890; May 31, 1891.

102. C. *vulgatum* L. Larger Mouse-ear Chickweed.

This is given on the authority of Dr. F. O. Jacobs, who has both this and preceeding species in his herbarium.

103. C. nutans Raf.

Gravelly soil and moist woods, somewhat common; railroad bridge one mile east of Granville; Everett's woods, one mile southwest of Granville. May 15, 1889; April 25, 1891.

XIII. PORTULACEAE.

52. Portulaca Tourn.

104. P. *oleracea* L. Common Purlane.

Our most troublesome weed in gardens. June 10, 1884; May 15, 1887; July 6, 1888; August 1, 1890; June 17, 1891.

53. Claytonia Gronov.

105. C. Virginica L. Spring Beauty.

Very common in grassy woods. May 2, 1884; April 9, 1886; April 10, 1888; April 13, 1889; February 15, 1890; April 1, 1891.

XIV. HYPERICACEAE.

54. Hypericum Tourn.

106. H. Ascyron L. Great St. John's-wort.

River banks, rare: Toboso. July 15, 1891.

107. H. prolificum L. Shrubby St. John's wort.

Rocky banks, rare; Arbutus Ridge, Granville and eastern part of county. August 20, 1888; August 1, 1891.

108. H. densiflorum Pursh.

Rocky banks, eastern part of county. Herbarium of Dr. F. O. Jacobs.

109. *H. perforatum* L. Common St. John's-wort.

Roadsides, especially dry and rocky soil, very common. July 19, 1887; July 18, 1889; June 19, 1891.

110. H. maculatum Walt.

Woods and roadsides, very common. July 5, 1890; July 14, 1891.

111. H. mutilum L.

Low grounds, rather common, quite abundant around the Licking Reservoir. July 28, 1887; July 19, 1889, August 4, 1890.

112. H. Canadense L.

Rocky soil, eastern part of county. Herbarium of Dr. F. O. Jacobs.

55. Elodes Adams.

113. E. campanulata Pursh. Marsh St. John's-wort.

Moist meadows, rare; Licking Reservoir. August 26, 1890; August 8, 1891.

XV. MALVACEAE.

56. Althaea L.

114. A. *officinalis* L. Marsh Mallow.

Roadsides, rare. This was collected by Prof. C. J. Herrick, July 2, 1886. Specimen in Denison University Herbarium.

57. Malva L.

115. M. *rotundifolia* L. Common Mallow.

Common everywhere. June 1, 1884; May 27, 1887; July 13, 1889; December 25, 1889; January 6, 1890; May 20, 1891.

116. M. *sylvestris* L. High Mallow.

Mr. W. E. Castle found several specimens of this growing in an old garden near Alexandria, where they had existed for a number of years. Hardly worthy of a place in this list.

58. Abutilon Tourn.

117. A. *Avisennae* Gaertn. Velvet Leaf.

A troublesome weed in cultivated grounds. August 15, 1887; July 30, 1888; August 12, 1890; July 29, 1891.

59. Hibiscus L.

118. H. moscheutos L. Swamp Rose Mallow.

Along the banks of the Licking Reservoir; abundant in this one locality. August 28, 1888; September 14, 1889; August 24, 1890; August 6, 1891.

119. H. *Trionum* L. Bladder Ketmia.

Gardens and roadsides, Granville and Licking Reservoir. August 28, 1888; July 28, 1890; August 11, 1891.

XVI. TILIACEAE.

60. Tilia Tourn.

120. T. Americana L. Basswood.

Somewhat common. July 4, 1890; July 1, 1891.

XVII. LINACEAE.

61. Linum Tourn.

121. L. Virginianum L.

Dry, rocky hillsides, wooded; common. July 22, 1890; September 1, 1891.

122. L. sulcatum Riddell.

Herbarium of Dr. F. O. Jacobs.

123. L. *usitatissimum* L. Common Flax.

In old fields and along the railroad tracks, common. August 18, 1888; July 22, 1890; July 15, 1891.

XVIII. GERANIACEAE.

62. Geranium Tourn.

124. G. maculatum L. Wild Cranesbill.

Woods, everywhere. May 19, 1884; May 23, 1887; May 6, 1888; May 11, 1889; May 5, 1890; May 8, 1891.

63. Erodium L'Her.

125. E. *cicutarium* L'Her. Storksbill.

Found on Denison University campus and along the streets of Granville in a few places, rare. May 27, 1890; May 18, 1891.

64. Floerkea Willd.

126. F. proserpinacoides Willd. False Mermaid.

Deep woods, somewhat common. May 21, 1889; May 5, 1890; May 14, 1891.

65. Oxalis L.

127. O. violacea L. Violet Wood Sorrel.

Rocky, open woods, rather rare. Thorne's Quarry, one-half mile west of Granville on Alexandria road. May 14, 1887; May 15, 1890; May 6, 1891.

128. O. corniculata L. Var. stricta Sav.

Around dwellings, very common. May 23, 1884; June 4, 1887; July 13, 1889; August 26, 1890; October 24, 1890; June 10, 1891.

129. O. recurva Ell.

This species is to be found growing in the rocky ravine on the road which runs to the south of Bald Hill, two miles southeast of Newark. June 10, 1890. (Station 16.)

66. Impatiens L.

130. I. pallida Nutt. Pale Touch-me-not.

Very common in moist situations. August 10, 1887; July 22, 1890; August 24, 1891.

131. I. fulva Nutt. Spotted Touch-me-not.

Found along with last. August 7, 1887; July 22, 1890; August 24, 1891.

XIX. RUTACEAE.

67. Xanthoxylum L.

132. X. Americanum Mill. Prickly Ash. Toothache Tree.

Rocky hillsides, very rare; Pine Hill, Vanattasburg.

68. Ptelea L.

133. P. trifoliata L. Shrubby Treefoil. Hop-tree.

Woods, somewhat rare; bank of creek on Lovers' Lane, south-

west of Newark and southeastern part of St. Albans township. June 19, 1891.

69. Ailanthus Desf.

134. A. *glandulosus* Desf. Tree of Heaven.

Very generally distributed throughout the central part of county, thoroughly established, generally found in dry or rocky soil.

XX. ILICINEAE.

70. Ilex L.

135. I. verticillata Gray. Black Alder. Winterberry.

Growing in wet places, rare; Cranberry Marsh in the Old Reservoir.

XXI. CELASTRACEAE.

71. Celastrus L.

136. C. scandens L. Wax-work. Climbing Bitter Sweet.

Roadsides and thickets, common. June 4, 1888; May 31, 1890.

72. Euonymus Tourn.

137. E. atropurpureus Jacq Burning-bush. Wahoo.

Roadsides and thickets, common. June 7, 1889; June 9, 1890.

138. E. Americanus L. Var. obovatus Torr and Gray.

Woods, rare, woods on campus of Denison University, Gravel Pit, two miles west of Granville. May 13, 1887; May 20, 1888; May 15, 1890; May 11, 1891.

XXII. RHAMNACEAE.

73. Rhamnus Tourn.

139. R. lanceolata Pursh.

Swamps, rare, Everett's swamp, one and one-half miles west of Granville.

74. Ceanothus L.

140. C. Americanus L. New Jersey Tea.

Dry, rocky woods, rare; Red Rock, Toboso. July 14, 1891.

XXIII. VITACEAE.

75. Vitis Tourn.

141. V. aestivalis Michx. Summer Grape.
Woods and along streams, common. June 10, 1890; June 4, 1891.

142. V. aestivalis Mich. Var. bicolor LeConte.
Dry woods, rare; Red Rock, Toboso.

143. V. cordifolia Michx. Frost or Chicken Grape.
Creek banks, common. June 6, 1889.

144. V. riparia Michx.
Creek banks, common. June 6, 1889.

76. Ampelopsis Michx.

145. A. quinquefolia Michx. Virginia Creeper.
Woods everywhere. July 28, 1890.

XXIV. SAPINDACEAE

77. Aesculus L.

146. Ae. glabra Willd. Fetid or Ohio Buckeye.
Along streams, somewhat common. May 8, 1884; May 6, 1887; May 1, 1889; May 30, 1891.

78. Acer Tourn.

147. A. saccharinum Wang. Sugar or Rock Maple.
Common everywhere. May 2, 1887; April 18, 1891.

148. A. saccharinum Wang. Var. nigrum Torr and Gray. Black Sugar Maple.
Less common than the above, but generally distributed.

149. A. dasycarpum Ehr. White or Silver Maple.
Common in cultivation, to be found wild at Toboso and Licking Reservoir. January 11, 1890; February 20, 1891.

150. A. rubrum L. Red or Swamp Maple.
Woods and along streams, common. April 7, 1887; April 2, 1889; November 20, 1890; March 25, 1891.

79. Negundo Moench.

151. N. aceroides Moench. Ash-leaved Maple. Box Elder.
Creek banks, common. April 19, 1889; April 10, 1890; April 18, 1891.

80. Staphylea L.

152. S. trifolia L. American Bladder-nut.
Creek banks, rare; Granville, Toboso, etc. May 23, 1888.

XXV. ANACARDIACEAE.

81. Rhus L.

153. R. glabra L. Smooth Sumach.
Rocky hillsides, common. July 5, 1890; July 14, 1891.

154. R. copallina L. Dwarf Sumach.
Dry, rocky hillsides, rare; Red Rock, Toboso. July 1, 1891.

155. R. venenata D C. Poison Sumach. Dogwood.
Swamps, rare; Everett's Swamp; Cranberry Marsh, Old Reservoir. June 20, 1890.

156. R. toxicodendron L. Poison Ivy. Poison Oak.
Common everywhere. June 23, 1888; June 19, 1891.

XXVI. POLYGALACEAE.

82. Polygala Tourn.

157. P. verticillata L.
Woods on dry hillsides, rare; Toboso. August 18, 1890; July 20, 1891.

XXVII. LEGUMINOSAE.

83. Trifolium Tourn.

158. T. *pratense* L. Red Clover.
Common everywhere. June 1, 1884; July 2, 1889; May 17, 1890.

159. T. stoloniferum Muhl. Running Buffalo Clover.
This plant has been reported, frequently, by good authorities, as occurring in Licking county. It has not been found of late years.

160. T. *repens* L. White Clover.

Common everywhere. May 28, 1884; June 24, 1889; May 28, 1890; May 14, 1891.

161. T. *hybridum* L. Alsike Clover.

Roadsides, Granville and St. Albans townships, rare. June 15, 1889; June 14, 1890.

162. T. *procumbens* L. Low Hop Clover.

Roadsides in dry soil, not common; eastern part of county. July 25, 1890; May 18, 1891.

84. Melilotus Tourn.

163. M. *officinalis* Willd. Yellow Melilot.

Waste places, very rare; Lancaster Bridge, Granville. June 7, 1887; July 13, 1884; June 13, 1891.

164. M. *alba* Lam. Sweet Clover. White Melilot.

Roadsides, everywhere, but of recent introduction, beginning to be a troublesome weed. July 3, 1886; July 15, 1889; June 13, 1891.

85. Medicago Tourn.

165. M. *lupulina* L. Black Medick. Nonesuch.

Common, especially along railroad tracks. July 3, 1886; July 20, 1889; June 24, 1891.

86. Psoralea L.

166. P. Onobrychis Nutt.

Roadsides, rare; two miles southeast of Newark, three miles west of Union Station, on Outville road. July 18, 1890; July 31, 1891.

87. Tephrosia Pers.

167. T. Virginiana Pers. Goat's Rue. Catgut.

Dry, rocky hillsides; eastern part of county, Laurel Ridge. June 19, 1891.

88. Robinia L.

168. R. Pseudacacia L. Common Locust.

I know of no trees except those which are cultivated or have escaped from caltivation. May 28, 1884; May 26, 1888; May 23, 1889; May 20, 1891.

89. Desmodium Desv.

169. D. nudiflorum D C.

Woods, especially eastern part of county, rather common. September 5, 1888; July 25, 1890; August 14, 1891.

170. D. acuminatum D C.

Woods, rather common. September 5, 1888; July 18, 1890; July 14, 1891.

171. D. rotundifolium D C.

Dry rocky woods, rare, Toboso. August 21, 1890.

172. D. canescens D C.

River banks, rare, Toboso. August 19, 1890.

173. D. laevigatum D C.

Dry, rocky hillsides, (pine woods), very rare; Toboso. August 19, 1890.

174. D. Dillenii Darlingt.

Shady places, common; Old Cemetery, Granville. August 9, 1890; August 20, 1891.

175. D. paniculatum D C.

Dry woods, Toboso. August 19, 1890.

176. D. Canadense D C.

Dry woods, Toboso. August 21, 1890.

177. D. rigidum D C.

Dry wooded hillsides, generally distributed over the central and eastern parts of county. August 19, 1890.

90. Lespedeza Michx.

178. L. procumbens Michx.

Dry, sandy soil, rare; Toboso. August 19, 1890; July 15, 1891.

179. L. Stuvei Nutt. Var. intermedia Watson.

Dry, rocky woods, especially on hillsides; Toboso, Pine Hill near Vanattasburg. August 19, 1890; September 1, 1891.

180. L. polystachya Michx.

Rocky, wooded hillsides, common in eastern part of county. August 19, 1890; September 1, 1891.

91. Lathyrus Tourn.

181. L. palustris L.

Swamps, very rare; Cranberry Marsh, Old Reservoir. June 20, 1890.

92. Apios Boerhaave.

182. A. tuberosa Moench.

River banks and moist places, somewhat common; Toboso, Licking Reservoir, Alexandria. August 16, 1890; August 9, 1891.

93. Strophostyles Ell.

183. S. angulosa Ell.

Found on T. & O. C. R. R. track one and one-half miles west of Alexandria. August 16, 1891.

94. Amphicarpaea Ell.

184. A. monoica Nutt.

Woods, common. August 24, 1887; August 21, 1890; August 21, 1891.

185. A. Pitcheri Torr and Gray.

Less common than the above, creek banks. August 21, 1890; August 15, 1891.

95. Cercis L.

186. C. Canadensis L. Red-bud.

Woods; Welsh Hills and eastern part of county. May 9, 1891.

96. Cassia Tourn,

187. C. Narilandica L. Wild Senna.

Roadsides and moist places, rather common. August 25, 1890.

188. C. Chamaecrista L. Partridge Pea.

Sandy soil, rare; eastern part of county. Herbarium of Dr. F. O. Jacobs.

189. C. nictitans L. Wild Sensitive Plant.

Sandy soil, rare; near the dam at Toboso. August 18, 1890.

97. Gleditschia L.

190. G. triacanthos L. Honey-locust.

Open woods, common. June 4, 1890; June 10, 1891.

XXVIII. ROSACEAE.

98. Prunus Tourn.

191. P. Americana Marshall. Wild Yellow or Red Plum.

Generally distributed over the county. May 10, 1890; May 9, 1891.

192. P. Virginiana L. Choke Cherry.

Creek banks, less common than next; Gravel Pit. May 23, 1888; May 10, 1890; May 9, 1891.

193. P. serotina Ehr. Wild Black Cherry.

Open woods, common. "When the first settlers arrived in the county, they found an immense grove of these trees extending along the valley of the Raccoon Creek for several miles. The trees were of very large size and hundreds of years old, as shown by the rings of growth. They were almost all cut down between 1830 40, especially after the opening of the Ohio Canal in 1833." A few of these are still standing. May 18, 1884; May 14, 1887; May 11, 1889; May 24, 1890; May 9, 1891.

99. Spiraea L.

194. S. salicifolia L. Common Meadow Sweet.

Margins of swamps, rare; Granger's Swamp. August 11, 1888; July 9, 1890; August 3, 1891.

195. S. lobata Jacq. Queen of the Prairie.

Margins of swamps, Spring Valley and Toboso, but rare. July 17, 1890.

196. S. Aruncus L. Goat's-beard.

Wet meadows, rare; Welsh Hills and Toboso. July 13, 1890

100 Physocarpus Maxim.

197. P. opulifolius Maxim. Nine bark.

Rocky hillsides, rare; Arbutus Ridge and a few places in eastern part of county. June 13, 1890.

101. Rubus Tourn.

198. R. strigosus Michx. Wild Red Raspberry.

Rocky hillsides, very rare; Spruce Hill.

199. R. occidentalis L. Black Raspberry. Thimbleberry.

Common everywhere. May 24, 1884; June 6, 1889; June 3, 1890; May 14, 1891.

A form with bright yellow fruit is frequently met with, the leaf being more whitened underneath than type. This is especially abundant along the roadside one and one-half miles southeast of Granville.

200. R. villosus Ait. Common or High Blackberry.

Woods and roadsides everywhere. Two forms can be easily distinguished, the more common with fruit nearly as thick as long, the other, the other growing in deep woods, has long, slender fruit, sweeter but less juicy than the other. On the farm of Mr. Tight, three miles west of Granville, there is a form with greenish white fruit. This is increasing in numbers year by year so that now there is a large number of bushes of this. May 30, 1884; May 21, 1887; June 6, 1889; May 24, 1890; May 14, 1891.

201. R. Canadensis L. Low Blackberry. Dewberry.

Dry, rocky fields; common on Welsh Hills and eastern part of country. May 26, 1890; May 18, 1891.

102. Geum L.

202. G. album Gmelin.

Open woods, rather common. June 23, 1888; July 21, 1889; June 23, 1890; June 12, 1891.

203. G. Virginianum Willd.

Open woods and moist meadows, common. June 4, 1888; July 18, 1889; July 9, 1890; July 14, 1891.

204. G. strictum Ait.

Roadsides, rare; near the house of J. M. Scott, one mile south of Alexandria. June 27, 1890.

205. G. vernum Torr and Gray.

Around dwellings, very common. May 12, 1887.

103. Waldsteinia Willd.

206. W. fragarioides Tratt. Barren Strawberry.

Rocky hillsides, very rare; Pine Hill, Vanattasburg. April 25, 1891.

104. Fragaria Tourn.

207. F. Virginiana Mill. Strawberry.

Woods and fields, not common; Welsh Hills. May 16, 1890; April 25, 1891.

208. F. Virginiana Mill. Var. Illinoensis Gray.

Common, especially in open fields and railroad tracks. May 23, 1884; May 31, 1889; May 5, 1890; April 25, 1891.

209. F. vesca L.

Rocky hillsides, rare; eastern part of county.

105. Potentilla L.

210. P. Norvegica L.

Fields and waste places, common. June 25, 1888; June 29, 1889; June 25, 1890; July 12, 1891.

211. P. argentea L. Silvery Cinquefoil.

Rocky hillsides, common. May 24. 1884; May 27, 1887; May 20, 1889; May 17, 1890; May 20, 1891.

212. P. palustris Scop. Marsh Five-finger.

Peat bogs, rare; Cranberry Marsh, Old Reservoir. June 20, 1890.

213. P. Canadensis L. Common Five-fingar.

Dry soil, rather common in eastern part of county. May 9, 1891.

214. P. Canadensis L. Var. simplex Torr. and Gray.

Fields everywhere. May 28, 1887; May 16, 1889; May 31, 1890; May 7, 1891.

106. Agrimonia Tourn.

215. A. Eupatoria L. Common Agrimony.

Roadsides and shady places, common. August 12, 1887; July 10, 1889; July 24, 1890; August 24, 1891.

216. A. parviflora Ait. Small-flowered Agrimony.

Wet meadows, common. August 4, 1890; August 1, 1891.

107. Rosa Tourn.

217. R. setigera Michx. Climbing or Prairie Rose.

Border of Swamps, rare; Reservoir. June 20, 1890.

218. R. Carolina L.

Swamps, common. June 13, 1888; June 20. 1890; July 1, 1891.

219. R. humilis Marsh.

Rocky and dry hillsides, rather common. May 14, 1888; June

23, 1889; July 5, 1890; June 19, 1891; September 4, 1891. Very variable.

220. R. *canina* L. Dog Rose.

There are a few bushes, growing near the T. &. O. C. R. R. bridge one mile east of Granville, which correspond very closely to this species. June 17, 1890.

221. R. *rubiginosa* L. Sweetbriar. Eglantine.

Roadsides, somewhat rare. There are several bushes on the Granville and Newark road. June 13, 1888; June 10, 1890; June 12, 1891.

108. Pyrus L.

222. P. coronaria L. American Crab-apple.

Woods, rather common. May 10, 1890; May 9, 1891.

223. P. *malus* L. Common Apple.

This is frequently found in waste places and along roadsides. May 5, 1884; November 6, 1889.

224. P. angustifolia Ait.

Very rare; Madison township. May 9, 1891.

225. P. arbutifolia L. f. Choke-berry.

Peat bogs, very rare; Cranberry Marsh, Old Reservoir. May 10, 1891.

226. P. arbutifolia L. f. Var. melanocarpa Hook.

Wet places, especially along brooks, very rare; Rain Rock, Eden Township. May 23, 1891.

109. Crataegus L.

227. C. coccinea L.

Woods, rather common, very variable. May 19, 1884; May 28, 1888; May 7, 1889; April 30, 1891.

228. C, coccinea L. Var. macracantha Dudley.

There are several trees growing on the banks of the Reservoir which are to be referred to this variety.

229. C. coccinea L. Var. mollis Torr. and Gray.

There are a few trees at Laurel Ridge, Newark, which agree very closely with this variety.

230. C. punctata Jacq.

Woods, very common. There is a tree growing on the farm of Mr. W. A. Castle, two miles west of Alexandria, which has leaves,

cut nearly to the midrib, thick and shiny, and bright yellow fruit. May 26, 1884; May 26, 1888; May 28, 1890; May 23, 1891.

231. C. Crus-galli. L. Cockspur Thorn.

A few specimens grow at the Reservoir.

110. Amelanchier Medic.

232. A. Canadensis Torr. and Gray. Shad Bush. Service Berry.

Rocky woods, common. April 30, 1884; April 15, 1887; April 27, 1888; April 16, 1889; April 18, 1891.

233. A. Canadensis Torr. and Gray. Var. oblongifolia Torr. and Gray.

Same situations as last. April 15, 1887; April 19, 1889; April 18, 1891.

XXIX. SAXIFRAGACEAE.

111. Saxifraga L.

234. S. Virginiensis L. Early Saxifrage.

Rocky hillsides, common. May 9, 1887; April 13, 1889; April 9, 1891.

235. S. Pennsylvanica L. Swamp Saxifrage.

Swamps and wet meadows, somewhat rare. A form was found in Mary Ann Township, in a wet meadow, with leaves much crenate and less hairy than typical specimens. Several specimens were found at Rain Rock which measured over 3½ feet, with leaves 12 inches long. May 28, 1888; May 23, 1891.

112. Mitella Tourn.

236. M. diphylla L. Mitre-wort. Bishop's Leaf.

Moist, rocky hillsides, rather common. May 20, 1887; May 1, 1889; April 25, 1891.

113. Heuchera L.

237. H. Americana L. Common Alum-root.

Moist, rocky hillsides, wooded, rather common, especially in eastern part of county. June 8, 1888; June 4, 1890.

114. Chrysosplenium Tourn.

238. C. Americanum Schwein. Golden Saxifrage.

Swamps and slowly flowing streams, common. May 3, 1887; April 1, 1891.

115. Parnassia Tourn.

239. P. Caroliniana Michx.

Eastern part of county, rare. Herbarium of Dr. F. O. Jacobs.

116. Hydrangea Gronov.

240. H. aborescens L. Wild Hydranges.

Rocky banks, especially on dry cliffs, common along the Licking River near Toboso, rare elsewhere. August 25, 1890; July 1, 1891.

117. Ribes L.

241. R. Cynosbati L.

Woods, everywhere. May 9, 1884; May 6, 1887; May 15, 1889; April 23, 1891.

242. R. floridum L. Her. Wild Black Currant.

Banks of swamps, somewhat rare; Everett's swamp. May 5, 1890; May 9, 1891.

XXX. CRASSULACEAE.

118. Penthorum Gronov.

243. P. sedoides L. Ditch Stone Crop.

Ditches and swamps, rather common. July 28, 1887; July 1, 1888; July 9, 1889; July 14, 1891.

119. Sedum Tourn.

244. S. ternatum Michx.

Gravelly, wooded hillsides, common. May 15, 1884; May 20, 1888; May 15, 1889; May 8, 1891.

XXXI. DROSERACEAE.

120. Drosera L.

245. D. rotundifolia L. Round-leaf Sundew.

Peat bogs; Cranberry Marsh, Old Reservoir. August 8, 1891.

XXXII. HAMAMELIDAE.

121. Hamamelis L.

246. H. Virginiana L. Witch Hazel.

Damp woods, rather common. November 14, 1887; January 6, 1890.

XXXIII. HALORAGEAE.

122. Myriophyllum Vaill.

247. M. spicatum L.

Very abundant in the Licking Reservoir, where it is troublesome because of its abundance. August 28, 1888; September 14, 1889; August 22, 1890; August 6, 1891.

XXXIV. LYTHRACEAE.

123. Rotala L.

248. R. ramosior Koehne.

Muddy shores, rare; Licking Reservoir. August 23, 1890; August 6, 1891.

124. Lythrum L.

249. L. alatum Pursh.

Licking Reservoir. Herbariums of Dr. F. O. Jacobs and Prof. W. C. Werner.

125. Decodon Gmel.

250. D. verticillatus Ell.

Swamps, somewhat rare; Licking Reservoir, Granger's Swamp. August 14, 1888; June 20, 1890; August 8, 1891.

XXXV. ONAGRACEAE.

126. Ludwigia L.

251. L. alternifolia L. Seed-box.

Licking Reservoir. Herbarium of Prof. W. C. Werner.

252. L. polycarpa Short and Peter.

Muddy banks, rare; Licking Reservoir. August 7, 1891.

253. L. palustris Ell. Water Purlane.

Same situation as last. August 4, 1890; August 7, 1891.

127. Epilobium L.

254. E. strictum Muht.

Peat bogs; Cranberry Marsh, Old Reservoir. August 8, 1891.

255. E. coloratum Muhl.
Wet places, somewhat common. August 4, 1887; July 30, 1891.

256. E. adenocaulon Haussk.
Wet places, rarely on moist hillsides, rather common. July 25, 1890; July 10, 1891.

128. Oenothera L.

257. Oe. biennis L. Common Evening Primrose.
Fields, etc., very common. July 25, 1887; July 3, 1889; July 25, 1890; July 15, 1891.

258. Oe. fruticosa L. Sundrops.
Fields, rare; Alexandria. June 20, 1891

129. Gaura L.

259. G. biennis L.
Alluvial soil, rare; Toboso. August 16, 1890; July 20, 1891.

130. Cirraea Tourn.

260. C. Lutetiana L. Enchanter's Night-shade.
Damp woods, common. June 20, 1890; July 18, 1891.

XXXVI. CUCURBITACEAE.

131. Sicyos L.

261. S. angulatus L. One-seeded Bur-cucumber.
Moist shady places, common. August 24, 1887; August 13, 1890; August 1, 1891.

132. Echinocystis Torr. and Gray.

262. E. lobata Torr. and Gray.
River banks, rare; Toboso. August 19, 1890.

XXXVII. FICOIDEAE.

133. Mollugo L.

263. M. *verticillata* L. Carpet Weed.
Gravelly soil, etc., common. July 30, 1890; July 1, 1891.

XXXVIII. UMBELLIFERAE.

134. Daucus Tourn.

264. D. *Carota* L. Wild Carrot.

Fields and roadsides. This plant has spread over the entire county in the last two years. July 25, 1890; June 24, 1891.

135. Angelica L.

265. A. hirsuta Muhl.

Rare; Toboso. August 23, 1890.

266. A. atropurpurea L.

Common along creek banks. June 23, 1888; July 4, 1890; July 8, 1891.

136. Tiedemannia D C.

267. T. rigida Coult. and Rose. Cowbane.

Swamps, rare; Everett's Swamp. August 15. 1891.

137. Heracleum L.

268. H. lanatum Michx. Cow Parsnip.

Creek banks and moist places, common. May 23, 1889; May 28, 1890; June 13, 1891.

138. Pastinaca L.

269. P. *sativa* L.

Roadsides everywhere. June 23, 1888; July 13, 1889; November 15, 1890; June 8, 1891.

139. Thaspium Nutt.

270. T. aureum Nutt.

Moist rocky woods, common. May 15, 1887; June 4, 1890; June 13, 1891.

271. T. aureum Nutt. Var. trifoliatum Coult. and Rose.

Same situations at last. June 17, 1890; May 9, 1891.

272. T. barbinode Nutt.

Rocky hillsides, somewhat common. May 28, 1890; June 13, 1891.

140. Ligusticum L.

273. L. actaefolium Michx. Nondo. Augelico.

Herbariums of Dr. F. O. Jacobs and W. E. Castle. June 13, 1891.

141. Pimpinella L.

274. P. integerrima Benth. and Hook.

Rocky hillsides, rare; eastern part of county. May 9, 1891.

142. Cryptotaenia D C.

275. C. Canadensis D C.

Damp woods, rather common. August 8, 1887; June 10, 1890.

143. Sium Tourn.

276. S. cicutaefolium Gmelin.

Swamps, common. September 22, 1888; July 20, 1890; July 31, 1891.

144. Zizia Koch.

277. Z. aurea Koch.

Creek banks and roadsides, somewhat rare; along Clear Run, Granville, Welsh Hills, etc. August 4, 1891.

145. Carum L.

278. C. *Carui* L. Caraway.

Naturalized in a few places. July 15, 1890.

146. Cicuta L.

279. C. maculata L. Spotted Cowbane. Beaver Poison.

River banks, swamps, etc., common. August 23, 1890. August 14, 1891.

280. C. bulbifera L.

Swamps, etc., common at the Reservoir and in the canal. August 14, 1891.

147. Discopleura D C.

281. D. capillacea D C.

Dr. F. O. Jacobs has this listed as D. Nuttallii D. C., which is probably a mistake for D. capillacen D C.

148. Conium L.

282. C. *maculatum* L. Poison Hemlock.

Along roadsides and waste places, common. July 4, 1890; June 8, 1891.

149. Chaerophyllum L.

283. C. procumbens Crantz.

Fields and open woods, common. April 28, 1888; April 19, 1889; April 21, 1891.

150. Osmorrhiza Raf.

284. O. brevistylis D C. Sweet Cicely.

Shady places common. May 24, 1890; May 18, 1891.

151. Erigenia Nutt.

285. E. bulbosa Nutt.

Open woods, somewhat rare; Spring Valley. April 16, 1887; April 22, 1889; February 26, 1890; March 26, 1891.

152. Sanicula Tourn.

286. S. Marylandica L.

Woods, somewhat rare; Toboso. August 20, 1890.

287. S. Marylandica L. Var. Canadensis Torr.

Damp woods, common. June 10, 1890.

XXXIX. ARALIACEAE.

153. Aralia Tourn.

288. A. racemosa L. Splkenard.

Rocky, moist woods, common. September 15, 1888; July 25, 1890.

289. A. hispida Vent. Bristly Sarsaparilla.

A few specimens of this were found last summer growing on the rocks over the cut on the B. & O. R. R., just west of Toboso.

290. A. nudicaulis L. Wild Sarsaparilla.

Rocky woods, somewhat rare; Welsh Hills. May 25, 1891.

291. A quinquefolia Decsne. and Planch. Ginseng.

Deep woods, somewhat rare. This plant has been gathered and sold in the county for over seventy-five years, formerly in large quantities, but of late years very little has been exported. August 5, 1888; July 15, 1890.

XL. CORNACEAE.

154. Cornus Tourn.

292. C. Canadensis L. Dwarf Cornel. Bunch-berry.

Deep, rocky woods, very rare; in the woods south of the bridge on Summit street, south Newark, about one half mile west of Laurel Ridge. May 31, 1890.

293. C. florida L. Flowering Dogwood.

Woods, everywhere. May 12, 1884; May 13, 1887; May 8, 1889; May 30, 1891.

294. C. sericea L. Silky Cornel. Kinnikinnik.

Along the banks of the Reservoir and a few other places. June 20, 1890.

295. C. asperifolia Michx.

Dry roadsides, rare; Vanattasburg, etc. Herbariums of Dr. F. O. Jacobs and author.

296. C. stolonifera Michx. Red Osier Dogwood.

Creek banks, somewhat rare; Lover's Lane, Newark. June 19, 1891.

297. C. paniculata L'Her. Panicled Cornel.

Margins of swamps and creek banks, generally distributed but not abundant. June 20, 1888; June 12, 1891.

298. C. alternifolia L. f.

Woods, generally in dry soil, widely distributed but not abundant. May 15, 1887; May 29, 1891.

155. Nyssa L.

299. N. sylvatica Marsh. Tupelo. Black or Sour Gum.

Generally distributed over the entire county, all kinds of soil, formerly much more abundant.

XLI. CAPRIFOLIACEAE.

156. Sambucus Tourn.

300. S. Canadensis L. Common Elder.

Common everywhere. June 28, 1884; June 24, 1886; June 20, 1888; July 2, 1889; August 8, 1890; July 4, 1891.

157. Viburnum L.

301. V. acerifolium L. Dockmackie. Arrow-wood.

Rocky woods, rather common. June 2, 1884; May 15, 1887; June 6, 1889.

302. V. pubescens Pursh. Downy Arrow-wood.

Rocky woods, somewhat rare; Welsh Hills. May 26, 1890.

303. V. dentatum L. Arrow-wood.

Moist woods in eastern part of county.

304. V. Lentago L. Sweet Viburnum. Sheep-berry.

Swamps, common; Granger's Swamp, Reservoir. May 2, 1889; May 27, 1890.

305. V. prunifolium L. Black Haw.

Woods, common. May 23, 1884; May 7, 1887; May 19, 1888; May 11, 1889; May 9, 1891.

158. Triosteum L.

306. T. perfoliatum L. Horse Gentian. Wild Coffee.

Rich woods, rather common; Gravel Pit. May 23, 1888; June 1, 1889; May 20, 1890.

159. Symphoricarpos Dill.

307. S. vulgaris Michx. Indian Currant. Coral-berry.

Roadside south of Granville, apparently escaped. September 7, 1889. Herbarium of Prof. C. J. Herrick.

160. Lonicera L.

308. L. ciliata Muhl. Fly Honeysuckle.

Rocky woods, rare; Laurel Ridge. June 5, 1889.

309. L. sempervirens Ait. Trumpet Honeysuckle. Herbarium of Dr. F. O. Jacobs.

310. L. glauca Hill.

Rocky woods, rare; Rain Rock. May 23, 1891.

161. Diervilla Tourn.

311. D. trifida Moench.

Rocky hillsides and woods, rare; Arbutus Ridge and a few places east of Newark. June 10, 1891.

XLII. RUBIACEAE.

162. Houstonia L.

312. H. caerulea L.

Woodlands and rocky hillsides, common. April 9, 1887; April 13, 1889; November 17, 1889; January 25, 1890; March 22, 1891.

313. H. purpurea L. Var. ciliolata Gray.

Banks of streams, very rare; two miles southeast of Alexandria. May 23, 1889.

314. H. purpurea L. Var. longifolia Gray.

Rocky hillsides, common. August 20, 1888; June 24, 1889; July 1, 1891.

163. Cephalanthus L.

315. C. occidentalis L.

Swamps, common. July 9, 1889; July 23, 1890; July 15, 1891.

164. Mitchella L.

316. M. repens L. Partridge-berry.

Rocky, wooded hillsides, common in central and eastern parts of county. June 13, 1890; May 19, 1891.

165. Galium L.

317. G. *Aparine* L. Cleavers. Goose-grass.

Common everywhere. May 12, 1887; May 21, 1888; April 29, 1889; May 27, 1890; April 28, 1891.

318. G. pilosum Ait.

Dry, rocky woods, very rare; Red Rock, Toboso. July 15, 1891.

319. G. circaezans Michx. Wild Liquorice.

Woods, common. June 6, 1890.

320. G. lanceolatum Torr. Wild Liquorice.

Woods, more common in eastern part of county. June 10, 1890.

321. G. latifolium Michx.

Herbarium of Dr. F. O. Jacobs.

322. G. trifidum L. Small Bedstraw.

Moist woods, very common. June 10, 1890; May 19, 1891.

323. G. trifidum L. Var. latifolium Torr.

Swamps, less common than type; Reservoir. June 20, 1890.

324. G. concinnum Torr and Gray.
Woods, common. July 22, 1887; June 25, 1890; May 19, 1891.

325. G. asprellum Michx. Rough Bedstraw.
Moist woods, common. August 4, 1888; May 20, 1889; June 25, 1890.

326. G. triflorum Michx. Sweet-scented Bedstraw.
Woods, common. May 21, 1889; July 4, 1890.

XLIII. VALERIANACEAE.

166. Valerianella Tourn.

327. V. chenopodifolia D C.
Moist grounds. Herbarium of W. E. Castle. June 12, 1891.

328. V. radiata Dufr.
Moist grounds, very common. May 20, 1891.

XLIV. DIPSACEAE.

167. Dipsacus Tourn.

329. D. *sylvestris* Mill. Wild Teasel.
Roadsides and waste places everywhere. August 1, 1888; July July 1, 1889; July 17, 1890; July 1, 1891.

XLV. COMPOSITAE.

168. Vernonia Schreb.

330. V. altissima Nutt.
Fields, everywhere. August 13, 1890,

169. Eupatorium Tourn.

331. E. purpureum L. Trumpet Weed.
Swamps and moist places, common. August 16, 1890.

332. E. sessilifolium L. Upland Boneset.
Rocky, wooded hillsides, somewhat rare; Red Rock, Toboso. August 23, 1890.

333. E. perfoliatum L. Boneset.
Fields and alluvial soil, common. September 22, 1890.

334. E. ageratoides L. White Snake-root.

Rich woods, common. August 26, 1890. A form found near Newark had the stem, petiole and leaves covered with hair.

170. Solidago L.

335. S. caesia L.
Moist woods, common. September 24, 1890.

336. S. latifolia L.
Moist, shady banks; Toboso. September 28, 1888; August 22, 1890.

337. S. bicolor L.
Rocky hillsides, common. September 27, 1890.

338. S. bicolor L. Var. concolor Torr. and Gray.
Same situations as last. August 8, 1887; September 27, 1890.

339. S. uliginosa Nutt.
Moist soil, rare; Toboso. August 25, 1890.

340. S. patula Muhl.
Swamps, common. August 27, 1887; September 24, 1890.

341. S. rugosa Mill.
Roadsides, common. September 19, 1890.

342. S. ulmifolia Muhl.
River banks, rare; Toboso. August 25, 1890.

343. S. serotina Ait.
River banks and roadsides, common. August 4, 1887; August 22, 1890.

344. S. serotina Ait. Var. gigantea Gray.
Same situations as last, common. August 22, 1890.

345. S. Canadensis L.
Fields, rare; herbarium of W. E. Castle. August 21, 1890.

346. S. nemoralis Ait.
Dry, rocky fields, common in the eastern part of county. August 21, 1890.

347. S. lanceolata L.
Moist meadows, common, at least around Granville. September 29, 1890.

171. Sericocarpus Nees.

348. S. conyzoides Nees. White-topped Aster.
Woods, common. July 25, 1890.

172. Aster L.

349. A. corymbosus Ait.
Dry woods; Newark. July 25, 1890.

350. A. macrophyllus L.
Rocky woods, common. August 10, 1887; August 25, 1890.

351. A. Novae Angliae L.
Alluvial soil, common. August 25, 1890.

352. A. patens Ait.
Herbarium of Dr. F. O. Jacobs.

353. A. Shortii Hook.
Gravelly banks, common. September 16, 1890.

354. A. undulatus L.
Border of woods, common. September 22, 1891.

355. A. cordifolius L.
Roadsides, common. September 23, 1891.

356. A. sagittifolius Willd.
Roadsides, common. September 23, 1890.

357. A. ericoides L.
D. U. Herbarium. August 5, 1890.

358. A. ericoides L. Var. villosus Torr and Gray.
Alexandria. August 22, 1890.

359. A. diffusus Ait.
Fields, common.

360. A. diffusus Ait. Var. hirsuticaulis Gray.
A form resembling this as closely as any other is some times met with in the fields around Granville.

361. A. Tradescanti L.

362. A. paniculatus Lam.

363. A. salicifolius Ait.
This and the two preceeding species are very common along roadsides, waste places, fields, etc. They blossom from September until winter. A number of intermediate forms are to be found.

364. A. Novi Belgii L.
Damp soil, Vanattasbug. September 1, 1891.

365. A. prenanthoides Muhl.
Moist soil, common. August 24, 1887; August 29, 1890.

366. A. puniceus L.
Swamps, common. August 29, 1887; August 30, 1890.

367. A. puniceus L. Var. laevicaulis Gray.
Swamps, common. September 29, 1890.

173. Erigeron L.

368. E. Canadensis L. Horse Weed.
Common everywhere. August 8, 1890.

369. E. annuus Pers. Daisy Fleabane.
Fields and roadsides, common. June 8, 1891.

370, E. strigosus Muhl.
Same as last. July 15, 1889.

371. E. bellidifolius Muhl. Robin's Plaintain.
Dry, rocky banks, common only in the eastern part of the county.

372. E. Philadelphicus L. Common Fleabane.
Fields, common. July 21, 1887; June 6, 1889.

174. Antennaria Gaertn.

373. A. plantaginifolia Hook. Plantain-leaved Everlasting.
Rocky banks, common. April 14, 1889.

175. Anaphalis D C.

374. A. margaritacea Benth. and Hook. Pearly Everlasting.
Fields, common. September 5, 1888; August 4, 1890.

176. Gnaphalium L.

375. G. uliginosum L. Low Cudweed.
Fields, rare; Welsh Hills. Herbarium of Prof. C. J. Herrick.

376. G. purpureum L. Purplish Cudweed.
Dry, rocky soil, common. September 5, 1888; October 13, 1890; July 2, 1891.

177. Inula L.

377. I. *Helenium* L. Elecampane.
Roadsides, rare; Newark, Granville and St. Albans townships. July 25, 1890.

178. Polymnia L.

378, P. Canadensis L.
Creek banks, not common. July 30, 1890.

179. Silphium L.

379. S. trifoliatum L.
River banks, rare; Toboso. July 15, 1891.

380. S. perfoliatum L. Cup-plant.
Creek banks, common. July 21, 1887; July 17, 1890.

180. Ambrosia Tourn.

381. A trifida. L. Great Ragweed.
Alluvial soil, common. September 2, 1887; August 13, 1890.

382. A. trifida L. Var. integrifolia Torr and Gray.
Same as last. September 13, 1890.

383. A. artemisiaefolia L. Ragweed. Hogweed.
Common everywhere. August 15, 1887; August 13, 1890; September 10, 1891.

181. Xanthium Tourn.

384. X. Canadense Mill. Cocklebur.
Common everywhere. August 27, 1887; August 21, 1890.

182. Eclipta L.

385. E. alba Hassk.
Moist soil, rare; Licking Reservoir. August 7, 1891.

183. Heliopsis Pers.

386. H. laevis Pers.
Alluvial soil, common. July 18, 1889; July 8, 1890.

184. Rudbeckia L.

387. R. laciniata L.
Creek banks, waste places; common. September 15, 1888; August 8, 1890.

388. R. hirta L.
Meadows, common. July 8, 1888; June 23, 1889; June 25, 1890.

389. R. fulgida Ait.
Dry soil, rare; Toboso. August 23, 1890.

185. Helianthus L.

390. H. annuus L. Common Sunflower.
Waste places, where it exists for a year or two.

391. H. laetiflorus Pers.
Eastern part of county. Herbarium of Dr. F. O. Jacobs.

392. H. pariflorus Bernh.
Thickets, rare; Toboso. August 23, 1890.

393. H. doronicoides Lam.
Alexandria. August 15, 1890.

394. H. divaricatus L.
Roadsides and waste places, somewhat common. July 17, 1890.

395. H. strumosus L.
Wet meadows and creek banks, common. September 23, 1890.

396. H. tracheliifolius Willd.
D. U. Herbarium. August 8, 1887.

397. H. decapetalus L.
Banks of streams, rare; Toboso. August 23, 1890.

398. H. Tuberosus L. Jerusalem Artichoke.
Creek banks, common.

186. Actinomeris Nutt.

399. A. squarrosa Nutt.
Creek banks, common. August 4, 1887; August 21, 1889; July 26, 1890.

187. Coreopsis L.

400. C. tripteris L. Tall Coreopsis.
River banks, rare; Toboso. August 22, 1890.

401. C. trichosperma Michx. Tickseed Sunflower.
Swamps, common. September 29, 1890.

402. C. aristosa Michx.
Swamps, common. August 28, 1888; August 18, 1890.

403. C. discoidea Torr. and Gray.
Swamps, common. September 27, 1890.

188. Bidens L.

404. B. frondosa L. Beggar-ticks.
Moist places everywhere. August 27, 1887; September 16, 1890.

405. B. connata Muhl. Swamp Beggar-ticks.
Herbarium of Denison University. August 27, 1887.

406. B. cernua L. Smaller Bur Marigold.

Wet places, common. September 17, 1890.

407. B. chrysanthemoides Michx. Larger Bur Marigold.

Swamps, common. September 16, 1890.

A peculiar form of this grows in the run on the farm of Mr. Moses Goodrich, north of Granville, being rough hairy over the entire stem, with the outer involucre longer than inner.

408. B. bipinnata L. Spanish Needles.

Moist places everywhere. August 8, 1887; September 14, 1889; July 25, 1890.

A very much reduced form sometimes found on rocks.

189. Helenium L.

409. H. autumnale L. Sneeze-weed.

Moist soil, somewhat rare; Licking Reservoir, Alexandria, etc. August 16, 1890.

190. Anthemis L.

410. A. *Cotula* D C. May-weed. Dog-fennel.

Roadsides, everywhere, but apparently not as abundant as a few years ago. July 13, 1889.

411. A. *arvensis* L. Corn Chamomile.

Fields, very rare; south of Laurel Ridge. June 4, 1890.

191. Achillea L.

412. A. Millefolium L. Yarrow. Milfoil.

Fields everywhere. May 27, 1887; July 15, 1889; June 25, 1890.

192. Chrysanthemum Tourn.

413. C *Leucanthemum* L. Ox-Eye Daisy. White Weed.

Fields, abundant in places, said to have been introduced in clover seed from Europe about twenty five years ago. June 4, 1887; June 15, 1889; June 21, 1891.

193. Tanacetum L.

414. T. *vulgare* L. Common Tansy.

Roadsides, common. August 27, 1887; August 2, 1891.

415. T. *vulgare* L. Var. *crispum* Gray.

Roadsides, less common. D. U. Herbarium. August 8, 1887.

194. Senecio Tourn.

416. S. lobatus Pers. Butter-weed.

Herbarium of Prof. W. G. Tight. May 26, 1887.

417. S. aureus L. Golden Ragwort.

Rocky banks, somewhat common. May 27, 1887; May 11, 1889.

418. S. aureus L. Var. obovatus Torr. and Gray.

Same situations but more common than type. May 6, 1887; April 15, 1890; April 20, 1891.

419. S. aureus L. Var. Balsamitae Torr. and Gray.

This has been reported several times as occuring in the county but as I know of no herbarium specimens, it is only inserted here with this explanation.

195. Cacalia L.

420. C. reniformis Muhl. Great Indian Plaintain.

Woods, somewhat common; Toboso. August 23, 1890.

421. C. atriplicifolia L. Pale Indian Plaintain.

Woods and rocky bands, common. September 5, 1888; August 23, 1890.

196. Erechtites Raf.

422. E. hieracifolia Raf. Fireweed.

Waste places, common. August 20, 1888; August 11, 1890.

197. Arctium L.

423. A. *Lappa* L. Burdock.

Waste places everywhere. July 21, 1887; July 17, 1890; July 2, 1891.

198. Cnicus Tourn.

424. C. *lanceolatus* Hoffm.

Pastures and fields everywhere. August 4, 1888; July 6, 1888; August 10, 1889; August 31, 1890; August 2, 1891.

425. C. altissimus Willd.

Fields, rare; Alexandria. August 13, 1890.

426. C. altissimus Willd. Var. discolor Gray.

Fields, rare; Clay Lick. August 25, 1890.

427. C. muticus Pursh. Swamp Thistle.

Swamps, somewhat common; Everett's Swamp. August 15, 1887; September 29, 1890.

428. C. *arvensis* Hoffm. Canada Thistle.
Fields, found only in a few places in the county. July 9, 1890.

199. Centaurea L.

429. C. *Cyanus* L. Bluebottle.
Escaped into waste places, rare. May 29, 1884; July 6, 1890.

200. Krigia Schreber.

430. K. amplexicaulis Nutt.
Rocky banks, rare; eastern part of county. May 31, 1890; June 4, 1891.

201. Hieracium Tourn.

431. H. paniculatum L.
Rocky, wooded banks, common. August 23, 1890; September 27, 1891.

432. H. venosum L. Rattlesnake-weed.
Rocky banks, common. June 25, 1889.

433. H. scabrum Michx.
Dry woods, rare; Toboso. August 23, 1890.

434. H. Gronovii L. Hairy Hawkweed.

202. Prenanthes Vaill.

435. P. altissima L.
Herbariums of Mr. W. E. Castle and Dr. F. O. Jacobs; rare. August 28, 1890.

203. Taraxacum Haller.

436. T. *officinale* Weber. Common Dandelion.
Common everywhere. June 5, 1890.

204. Lactuca Tourn.

437. L. *Scariola* L. Prickly Lettuce.
Waste places everywhere. July 25, 1887; July 30, 1890.

438. L. Canadensis L. Wild Lettuce.
Roadsides, common. June 25, 1890.

439. L. integrifolia Bigel.
River banks, rare; Toboso. August 23, 1890.

440. L. hirsuta Muhl.

Herbarium of W. E. Castle. August 4, 1891.

441. L. acuminata Gray.

River banks, rare; Toboso. August 21, 1890.

442. L. leucophaea Gray.

Alluvial soil, rather common; Toboso and Granville. August 22, 1890; August 24, 1891.

205. Sonchus L.

443. S. *oleraceus* L. Common Sow Thistle.

Roadsides and waste places, common. July 25, 1887; August 4, 1890; July 29, 1891.

444. S. *asper* Vill. Spiny-leaved Sow Thistle.

Same situation as last, common. June 19, 1890; September 2, 1891.

XLVI. LOBELIACEAE.

206. Lobelia L.

445. L. cardinalis L. Cardinal flower.

Swamps and moist woods, common, especially in the southern part of the county. August 14, 1888; June 29, 1889; August 20, 1891.

446. L. syphilitica L. Great Lobelia.

Moist soil, common. August 10, 1887; June 29, 1889; August 4, 1890.

447. L. leptostachys A. D C.

Rocky woodlands, (sandstone conglomerate), rare; Toboso. August 15, 1891.

448. L. inflata L. Indian Tobacco.

Pastures, common. July 28, 1888; August 8, 1889.

XLVII. CAMPANULACEAE.

207. Specularia Heister.

449. S. perfoliata A. D C. Venus' Looking Glass.

Rocky hillsides, common. June 9, 1887; June 3, 1889; June 3, 1891.

208. Campanula Tourn.

450. C. aparinoides Pursh. Marsh Bellflower.

Wet, grassy grounds, rare; Welsh Hills. July 27, 1889; June 26, 1890.

451. C. Americana L. Fall Bellflower.

Rich woodlands, etc., common; very variable according to its situation. July 25, 1887; July 21, 1889; July 1, 1891.

XLVIII. ERICACEAE.

209. Gaylussacia H. B. K.

452. G. resinosa Torr. and Gray. Black Huckleberry.

Rocky hillsides and woods, rare; Flint Ridge, Rain Rock. May 9, 1891.

210. Vaccinium L.

453. V. stamineum L. Deerberry. Squaw Huckleberry.

Dry, rocky woods, very rare; southeast of Newark near Laurel Ridge. May 31, 1890.

454. V. vaccillans Solander. Low Blueberry.

Rocky hillsides, common in central and eastern part of county. May 9, 1887; June 16, 1888; June 6, 1888; May 9, 1891.

455. V. corymbosum L. Common or Swamp Blueberry.

Moist, rosky hillsides, less common than last. June 6, 1889.

456. V. macrocarpon Ait. Large or American Cranberry.

Bogs, rare; Cranberry Marsh, Old Reservoir. Formerly this species also grew in what was known as Cranberry Swamp, Washington Township. June 20, 1890.

211. Epigaea L.

457. E. repens L. Trailing Arbutus. May flower.

Rocky hillsides, growing among mosses; Arbutus Ridge, Spring Valley, Spruce Hill, Pine Hill and eastern part of county. March 26; 1891; April 15, 1887; April 15, 1889.

212. Gaultheria, Kalm.

458. G. procumbens, L. Creeping Wintergreen.

Rocky wooded hillsides, somewhat rare. Toboso, August 16, 1890; July 14, 1891.

213. KALMIA L

459. K. latifolia L. Mountain Laurel.

Rocky hills, (sandstone.) Laurel Ridge and eastern part of county. June 6, 1887; June 5, 1889; June 20, 1890; June 16, 1891.

214. CHIMAPHILA Pursh.

460. C. umbellata Nutt. Prince's Pine. Pipsissewa.

Eastern part of county. Herbarium of Dr. F. O. Jacobs.

461. C. maculata, Pursh. Spotted Wintergreen.

Dry woods, rare; Welsh Hills, Spruce Hill, Red Rock, Toboso. July 5, 1890.

215. PYROLA Tourn.

462. P. elliptica Nutt. Shin-leaf.

Rich woods, somewhat rare; Goodrich's woods, M. J. Williams' woods, etc., Granville. June 30, 1890.

463. P. rotundifolia L.

Sandy woods, rare; Toboso and eastern part of county.

216. MONOTROPA L.

464. M. uniflora L. Indian Pipe. Corpse Plant.

Deep rich woods, not abundant but distributed over the entire county. September 3, 1888; July 4, 1890; July 14, 1891.

XLVIX. PRIMULACEAE.

217. STEIRONEMA Raf.

465. S. ciliatum Raf.

Open woods; common. July 25, 1887; July 3, 1889; June 26, 1890.

218. LYSIMACHIA, Tourn.

466. L. quadrifolia L.

Sandy woods, especially on hillsides, somewhat rare; Arbutus Ridge. June 14, 1887; June 24, 1889; June 19, 1891.

467. L. *nummularia* L. Moneywort.

Escaped from cultivation in many places. June 19, 1891.

219. SAMOLUS Touru.

468. S. Valerandi L. Var. Americanus Gray. Brookweed.

Moist places, even on moist rocks, somewhat rare; Black Hand Rock, Toboso and a few other places. August 27, 1887; June 25, 1890; July 18, 1891.

L. EBENACEAE.

220. Diospyros L.

469. D. Virginiana L. Common Persimmon,

Roadsides and fields, rare; Flint Ridge and near Jersey, only a very few trees. No herbarium specimens.

LI. OLEACEAE.

221. Fraxinus Tourn.

470. F. Americana L. White Ash.

Common everywhere.

471. F. pubescens Lam. Red Ash.

Words, rare. Specimens in Denison Herbarium.

472. F. quadrangulata Michx. Blue Ash.

Woods, rare; southeast corner of New Cemetery, Granville, and a few other localities.

473. F. sambucifolia L. Black Ash.

Woods, rare; Mt. Parnassus.

LII. APOCYNACEAE.

222. Apocynum Tourn.

474. A. cannabinum L. Indian Hemp.

Roadsides, etc., common. July 2, 1887; June 25, 1890; June 13, 1891.

223. Vinca L.

475. V. *minor* L. Periwinkle.

Escaped from cultivation in many places. May 28, 1889; April 21, 1890; April 18, 1891.

LIII. ASCLEPIADACEAE.

224. Asclepias L.

476. A. tuberosa L. Butterfly-weed. Pleurisy-root.

Meadows and pastures, somewhat rare; Denison Campus, Alexandria and Clay Lick. July 9, 1890; July 30, 1891.

477. A. incarnata L. Swamp Milkweed.

Swamps, common. July 15, 1889; July 30, 1890; July 21, 1891.

478. A. incarnata L. Var. pulchra Pers.

Swamps, less common than type. July 11, 1887; August 1, 1891.

479. A. Cornuti Decaisne. Common Milkweed.

Roadsides, fields, etc., common. June 27, 1888; July 15, 1889.

480. A. Sullivantii Engelm.

Moist fields, very rare; western part of county. Specimen in Denison Herbarium. August 27, 1887.

481. A. phytolaccoides Pursh. Poke Milkweed.

Moist woods and creek banks, rare; Alexandria and south of Newark.

482. A. quadrifolia L.

Dry, rocky woods and hillsides, very rare; Welsh Hills. Specimens in herbariums of W. H. Jones and C. E. Barker. June 8, 1891.

LIV. GENTIANACEAE.

225. Sabbatia Adams.

483. S. angularis Pursh.

Dry soil and roadsides and in the grass, somewhat rare; eastern part of county. August 22, 1890; July 18, 1891.

226. Gentiana Tourn.

484. G. crinita Froel.

Herbarium of Dr. F. O. Jacobs.

485. G. Andrewsii Griseb. Closed Gentian.

Moist woodlands, very rare; banks of New Reservoir. September 14, 1889.

227. Frasera Walt.

486. F. Carolinensis Walt.

Sandy woods, very rare; Red Rock, Toboso. It is said to grow on Welsh Hills in one or two places. July 14, 1891.

228. Bartonia Muhl.

487. B. tenella Muhl.

Rich woods on the islands in Old Reservoir. Herbarium of Prof. W. C. Werner.

229. Obolaria L.

488. O. Virginica L.

Deep woods, rare; Welsh Hills and eastern part of county. April 23, 1891.

230. Menyanthes Tourn.

489. M. trifoliata L.

Grows abundantly in the Cranberry Marsh, Old Reservoir and around the islands in the shallow water. It has not been found anywhere else in the county. May 16, 1891.

LV. POLEMONIACEAE.

231. Phlox L.

490. P. paniculata L.

Moist woodlands and even in swamps, somewhat common; Everett's Swamp. August 8, 1887; June 25, 1890; August 24, 1891.

491. P. maculata L. Wild Sweet-William.

Moist meadows or swamps, common. May 28, 1887; June 25, 1890; June 12, 1891.

492. P. reptans Michx.

Herbarium of Dr. F. O. Jacobs.

493. P. divaricata L. Woods, everywhere, very variable, petals notched at end or entire, both forms common. May 9, 1884; April 22, 1888; April 16, 1889; April 21, 1891.

494. P. subulata L. Moss Pink.

Rocky hillsides; Dug-way, between Newark and Granville, common in eastern part of county. May 7, 1887; May 10, 1888; January 3, 1889; April 13, 1889; April 18, 1891.

232. Polemonium Tourn.

495. P. reptans L. Greek Valerian.

Woods, common. May 16, 1887; April 29, 1889; May 15, 1890; April 25, 1891.

LVI. HYDROPHYLLACEAE.

233. Hydrophyllum Tourn.

496. H. macrophyllum Nutt.
Woods, common. May 27, 1890.

497. H. Virginicum L.
Woods, common. May 30, 1887; May 26, 1889; June 13, 1890.

498. H. Canadense L.
Woods, somewhat rare; Alexandria. June 13, 1890.

499. H. appendiculatum Michx.
Woods, very common. May 27, 1884; May 21, 1887; May 30, 1889; June 25, 1890; May 14, 1891.

234. Phacelia Juss.

500. P. Purshii Buckley. Miami Mist.
Common, especially along hedge rows. May 27, 1884; May 26, 1887; May 28, 1890.

LVII. BORRAGINACEAE.

235. Cynoglossum Tourn.

501. C. *officinale* L. Common Hound's Tongue.
Fields, common. May 30, 1887; May 1, 1889; May 26, 1890; May 30, 1891.

502. C. Virginicum L. Wild Comfrey.
Woods, rare; Welsh Hills. May 16, 1890; May 30, 1891.

236. Echinospermum Lehm.

503. E. Virginicum Lehm. Beggar's Lice.
Open woods, common. August 1, 1888; July 15, 1889; July 22, 1890; June 27, 1891.

504. E. *Lappula* Lehm.
Open woods and waste grounds, common. August 1, 1888; July 8, 1890; June 27, 1891.

237. Mertensia Roth.

505. M. Virginica D C. Blue Bells. Virginian Cowslip.
Common in cultivation, grows wild along the Raccoon Creek. April 18, 1890; April 17, 1891.

238. Myosotis Dill.

506. M. verna Nutt.
Herbarium of Dr. F. O. Jacobs.

239. Lithospermum Tourn.

507. L. *arvense* L. Corn Gromwell.
Waste places in gravelly soil, common. May 20, 1887; May 7, 1888; April 10, 1889; April 2, 1891.

240. Onosmodium Michx.

508. O. Virginianum D C.
Herbarium of Dr. F. O. Jacobs.

241. Echium Tourn.

509. E. *vulgare* L. Blue Weed.
Along B. & O. R. R. track at Toboso. May 31, 1888; August 23, 1890.

LVIII. CONVOLVULACEAE.

242. Ipomoea L.

510. I. *purpurea* Lam. Common Morning-glory.
Waste places where it exists for a year or two. June 5, 1888; August 30, 1890; August 19, 1891.

511. I pandurata Meyer. Wild Potato-vine.
Alluvial soil, rare; banks of Licking River at Toboso and Vanattasburg. August 16, 1890; September 1, 1891.

243. Convolvulus Tourn.

512. C. sepium L. Var. Americanus Sims.
Alluvial soil, common. July 15, 1889; June 19, 1891.

513. C. sepium L. Var. repens Gray.
Wet places, somewhat rare; Old and New Reservoirs. June 20, 1890; August 8, 1891.

244. Cuscuta Tourn.

514. C. Gronovii Willd.
Moist grounds, common. September 14, 1889; August 21, 1890.

C. glomerata Choisy.

Herbarium of Dr. F. O. Jacobs. The identity of this species is doubtful and is only inserted here with this explanation.

LIX. SOLANACEAE.

245. Solamum Tourn.

515. S. *Dulcamara* L. Bittersweet.

Along the banks of the Licking Reservoir, creek banks, Alexandria. June 20, 1890; August 8, 1891.

516. S. nigrum L. Common Nightshade.

Around buildings, common. August 8, 1889; July 1, 1891.

246. Physalis L.

517. P. pubescens L.

Fields and open places, common. August 20, 1888; June 25, 1890.

518. P. Virginiana Mill.

Fields and open places, common. June 25, 1890; July 6, 1891.

247. Nicandra Adams.

519. N. *physaloides* Gaertn. Apple of Peru.

Herbarium of Dr. F. O. Jacobs.

248. Datura L.

520. D. *Stramonium* L. Jamestown weed.

Waste places, common. August 15, 1887; September 24, 1890.

521. D. *Tatula* L. Purple Jamestown-weed.

Waste grounds, common. September 4, 1888; July 30, 1890.

LX. SCROPHULARIACEAE.

249. Verbascum L.

522. V. *Thapsus* L. Common Mullein.

Fields, everywhere. August 20, 1888; July 18. 1889; July 25, 1890; June 19, 1891.

523. V. *Blattaria* L. Moth Mullein.

Fields, common This species has increased very rapidly in the last two years. August 3, 1888; July 2, 1889; June 19, 1891.

250. Linaria Tourn.

524. L. *vulgaris* Mill. Butter and Eggs. Toad Flax.
Roadsides, common. June 25, 1890.

251. Scrophularia Tourn.

525. S. nodosa L. Var. Marilandica Gray.
Alluvial soil, common. September 22, 1888; August 10, 1889; July 1, 1891.

252. Collinsia Nutt.

526. C. verna Nutt. Blue-eyed Mary.
Deep woods, rare; M. J. Williams' woods, where it is very scarce and also a few other places near Granville. It is abundant in woods just west of Cranberry Marsh, Old Reservoir. This plant was formerly very abundant but has been steadily decreasing in numbers and bids fair to be soon exterminated. May 24, 1884; May 7, 1887; June 3, 1889; April 24, 1891.

253. Chelone Tourn.

527. C. glabra L.
Swamps, not rare. August 28, 1888; September 14, 1889; August 20, 1891.

Pentstemon Mitchell.

528. P. laevigatus Solander.
Fields, rather common. June 29, 1889; June 27, 1890.

254. Mimulus L.

529. M. ringens L.
Swamps, rather common; Granger's Swamp. July 9, 1890; July 14, 1891.

530. M. alatus Ait.
Swamps, more abundant; Spring Valley. August 10, 1888; August 8, 1889; July 18, 1891.

255. Gratiola L.

531. G. Virginiana L.
Along the muddy banks of the Licking Reservoir. June 23, 1888; June 20, 1890.

256. Ilysanthes Raf.

532. I. riparia Raf. False Pimpernel.

Muddy shores of the Licking Reservoir. August 4, 1890; August 7, 1891.

257. Veronica L.

533. V. Virginica L. Culver's-root.

Sandy fields, rare; in the field back of Red Rock, Toboso; Pine Hill, Vanattasburg. August 21, 1890.

534. V. Americana Schweinitz. American Brooklime.

Swamps and ditches, common. June 16, 1888; June 4, 1890; August 24, 1891.

535. V. scutellata L. Marsh Speedwell.

Swamps and moist woods, rare; woods on the north bank of the Old Reservoir just west of the Cranberry Marsh. June 23, 1888; August 9, 1891.

536. V. officinalis L. Common Speedwell.

Dry, rocky hills and woods, common in the Welsh Hills and eastern part of county. June 6, 1889; May 30, 1891.

537. V. serpyllifolia L. Thyme-leaved Speedwell.

Grassy places, common. June 23, 1888; May 12, 1889; June 14, 1890; May 4, 1891.

538. V. peregrina L. Purlane Speedwell.

Especially common in corn fields, especially in alluvial soil. May 6, 1889; April 30, 1890; April 30, 1891.

539. V. *arvensis* L. Corn Speedwell.

Grassy places, common. May 30, 1888; May 23, 1889; June 13, 1890; April 25, 1891.

258. Seymeria Pursh.

540. S. macrophylla Nutt. Mullein Foxglove.

Open woods and creek banks, most abundant in the eastern part of the county. August 10, 1887; July 18, 1890; July 14, 1891.

259. Gerardia L.

541. G. flava L. Downy False Foxglove.

Open rocky woods, rare; Welsh Hills and eastern part of county. July 30, 1891.

542. G. tenuifolia Vahl. Slender Gerardia.

Bogs and moist places, rare; Cranberry Marsh, Old Reservoir and Pine Hill, Vanattasburg. August 26, 1890; September 1, 1891.

260. Pedicularis Tourn.

543. P. Canadensis L. Common Lousewort. Wood Betony.

Rocky hillsides, common. April 22, 1889; May 5, 1890; April 25, 1891.

544. P. lanceolata Michx.

Swamps, rare; specimen from Denison University Herbarium. September 22, 1888.

LXI. OROBANCHACEAE.

261. Epiphegus Nutt.

545. E. Virginiana Bart. Beech drops.

Beech woods, common. September 28, 1888; August 22, 1890.

262. Conopholis Wallroth.

546. C. Americana Walroth. Squaw-root.

Deep woods, rare; Welsh Hills and eastern part of county. May 18, 1891.

263. Aphyllon Mitchell.

547. A. uniflorum Gray. One-flowered Cancer-root.

Herbarium of Dr. F. O. Jacobs.

LXII. LENTIBULARIACEAE.

264. Utricularia L.

548. U. minor L. Smaller Bladderwort.

Herbarium of Dr. F. O. Jacobs.

LXIII. BRIGNONIACEAE.

The two following species are very common in cultivation in the county, but it is not known whether they occur wild or are even spontaneous. They are inserted here with this explanation.

265. Tecoma Jurs.

549. T. *radicans* Juss. Trumpet Creeper.

266. CATALPA Scop., Walt.

550. C. *bignonioides* Walt.

LXIV. ACANTHACEAE.

267. RUELLIA Plumier.

551. R. ciliosa Pursh.

Gravelly soil on roadside at the base of Laurel Ridge. June 19, 1891.

552. R. strepens L.

Rich soil, rare; Toboso. August 25, 1890.

268. DIANTHERA Gronov.

553. D. Americana L. Water Willow.

Growing in creeks, common. June 27, 1890.

LXV. VERBENACEAE.

269. VERBENA Tourn.

554. V. urticaefolia L. White Vervain.

A common weed in pastures. August 7, 1887; August 5, 1889; July 25, 1890; July 15, 1891.

555. V. hastata L. Blue Vervain.

A common weed in pastures. August 4, 1887; August 10, 1889; July 25, 1890; July 13, 1891.

270. LIPPIA Houst.

556. L. lanceolata Michx. Fog-fruit.

On the banks of the Licking Reservoir. August 28, 1888; August 3, 1889; August 4, 1890; August 6, 1891.

271. PHRYMA L.

557. P. Leptostachya L. Lopseed.

Rich woods, common. July 29, 1889; July 5, 1890; August 24, 1891.

LXVI. LABIATAE.

272. TEUCRIUM Tourn

558. T. Canadense L. American Germander.

Moist soil, somewhat rare; Licking Reservoir, etc. July 9, 1889 July 1, 1890; July 14, 1891.

273. Collinsonia L.

559. C. Canadensis L. Rich-weed. Stone-root.
Rich woods, somewhat common. August 10, 1889; August 21, 1890; September 1, 1891.

274. Mentha Tourn.

560. M. *viridis* L. Spearmint.
Moist soil, common. July 28, 1887; July 17, 1890; August 24, 1891.

561. M. *piperita* L. Peppermint.
Banks of streams, common. August 27, 1887; July 1, 1891.

562. M. *sativa* L. Whorled Mint.
Moist soil, somewhat common. August 11, 1888; July 15, 1889.

563. M. Canadensis L. Wild Mint.
Moist soil, not common. July 9, 1890.

275. Lycopus Tourn.

564. L. Virginicus L. Bugle Weed.
Moist soil, common. August 20, 1890.

565. L. rubellus Moench.
Moist soil, western part of county. September 1, 1891.

566. L. sinuatus Ell.
Moist soil, common. August 4, 1887; August 15, 1889; August 30, 1890.

276. Pycnanthemum Michx.

567. P. lanceolatum Pursh.
In a field next to the depot at Alexandria, rare. August 13, 1891.

568. P. linifolium Pursh.
Roadside on Lover's Lane, rare. July 8, 1891.

569. P. muticum Pers.
Wooded, dry hillsides, rare; Toboso. August 23, 1890.

570. P. incanum Michx.
Wooded, dry hillsides, rare; Toboso. August 23, 1890.

277. Melissa Tourn.

571. M. *officinalis* L. Common Balm.
Roadsides, rather rare; Newark. July 25, 1890.

278. Hedeoma Pers.

572. H. pulegioides Pers. American Pennyroyal.
Rocky woods and hillsides, dry soil, common. August 4, 1887; July 22, 1890.

279. Monarda L.

573. M. fistulosa L. Wild Bergamot.
Roadsides in both alluvial and dry soil, common. July 1, 1890.

280. Blephilia Raf.

574. B. ciliata Raf.
Herbarium of Dr. F. O. Jacobs.

575. B. hirsuta Benth.
Alluvial and gravelly soil, common. August 24, 1887; July 23, 1889; July 17, 1890.

281. Lophanthus Benth.

576. L. nepetoides Benth.
Alluvial and gravelly soil, common. August 24, 1887; August 21, 1889.

282. Nepeta L.

577. N. *Cataria* L. Catnip.
Common everywhere in waste places. July 15, 1889.

578. N. *Glechoma* Benth. Ground Ivy. Gill over the Ground.
Shady places, especially in alluvial soil, common. May 30, 1887; June 6, 1889; April 23, 1891.

283. Scutellaria L.

579. S. lateriflora L. Mad-dog Skullcap.
Alluvial soil, common especially at the Reservoir. August 4, 1887; August 10, 1889; August 15, 1890; August 5, 1891.

580. S. versicolor Nutt.
Alluvial and gravelly soils, rather common. July 2, 1889; June 25, 1890.

581. S. saxatilis Riddell.
Moist soil, very rare; Licking Reservoir. Herbarium of E. V. Wilcox.

582. S. canescens Nutt.

Roadsides, rather common, especially in eastern part of county. July 18, 1890; July 15, 1891.

583. S. pilosa Michx.

Woody hillsides, very rare; from the ridge which runs parallel to Lover's Lane on the east side of the creek. June 19, 1891.

584. S. galericulata L.

Wet, shady places, common. July 9, 1890; August 6, 1891.

585. S. nervosa Pursh.

Open woods, rather rare; eastern end of Laurel Ridge. June 4, 1890.

284. Brunella Tourn.

586. B. vulgaris L. Common Self-heal. Heal all.

Waste places, common. July 28, 1887; July 15, 1889; July 8, 1890.

285. Physostegia Benth.

587. P. Virginiana Benth.

Moist soil, very rare; Licking Reservoir. Herbarium of Denison University. August 28, 1888.

286. Marrubium Tourn.

588. M. *vulgare* L. Common Horehound.

Waste places, very common. June 22, 1889; July 4, 1890; August 15, 1891.

287. Leonurus L.

589. L. *Cardiaca* L. Common Motherwort.

Waste places, very common. November 15, 1888; July 15, 1889; July 30, 1890; June 10, 1891.

288. Lamium L.

590. L. *album* L.

Sparingly escaped. June 8, 1891.

591. L. *maculatum* L.

Sparingly escaped. July 16, 1890; June 8, 1891.

289. Stachys Tourn.

592. S. palustris L.

Wet places, common. June 23, 1890; July 14, 1891.

593. S. aspera Michx.

Wet places; Licking Reservoir. Herbarium of W. E Castle. August 10, 1891.

594. S. aspera Michx. Var. glabra Gray.

Wet places, somewhat rare; Granville. August 10, 1889.

595. S. cordata Riddell.

Woods, somewhat rare; Arbutus Ridge. June 23, 1888; July 8, 1890.

LXVIII. PLANTAGINACEAE.

290. Plantago Tourn.

596. P *major* L. Common Plantain.

Fields and grassy places everywhere. August 20, 1888; July 2, 1889; July 10, 1890; June 16, 1891.

597. P. *lanceolata* L. Ribgrass. English Plantain.

Fields, everywhere.. May 17, 1887; June 6, 1889; June 14, 1890; June 23, 1891.

598. P. *Patagonica* Jacq. Var. *aristata* Gray.

Very rare; Meadow two miles west of Alexandria. August 14, 1890.

599. P. Virginica L.

Gravelly and sandy soil, rare; New Cemetery, Granville. May 24, 1889; April 30, 1891.

LXIX. ILLECEBRACEAE.

291. Anychia Michx.

600. A. capillacea D C.

Open woods, common. July 17, 1890.

LXX. AMARANTACEAE.

292. Amarantus Tourn.

601. A. *retroflexus* L.

Cultivated and waste ground, common. August 28, 1887; July 20, 1889; August 12, 1890; August 8, 1891.

602. A. *chlorostachys* Willd.

Banks of Licking Reservoir. August 26, 1890; August 8, 1891.

603. A. albus L. Tumble Weed.
Herbarium of Denison University. August 27, 1888.

LXXI. CHENOPODIACEAE.

293. Chenopodium Tourn.

604. C. *album* L. Lamb's Quarters. Pigweed.
Waste places, everywhere. September 2, 1887; July 20, 1889; August 12, 1890; August 2, 1891.

605. C. hybridum L. Maple-leaved Goosefoot.
Waste places, common. August 2, 1890.

LXXII. PHYTOLACCACEAE.

294. Phytolacca Tourn.

606. P. decandra L. Common Poke.
Fields, common. July 2, 1889; July 8, 1890; August 24, 1891.

LXIII. POLYGONACEAE.

295. Rumex L.

607. R. Britannica L. Great Water-dock.
Swamps, rare; Everett's Swamp, Cranberry Marsh, Old Reservoir.

608. R. altissimus Wood. Pale Dock.
Moist soil, rare; New Cemetery, Granville. June 8, 1891.

609. R. verticillatus L. Swamp Dock.
Swamps, rare; Licking Reservoir. June 20, 1890.

610. R. *crispus* L. Curled Dock.
Waste places, everywhere. June 4, 1887; July 31, 1888; June 10, 1890; June 24, 1891.

611. R. *obtusifolius* L. Bitter Dock.
Waste places, very common. July 4, 1890; June 7, 1891.

612. R. *Acetosella* L. Sheep Sorrel.
Meadows and fields everywhere. May 17, 1887; June 6, 1889; June 15, 1890; June 1, 1891.

296. Polygonum Tourn.

613. P. aviculare L.

Yards, very common. September 7, 1888; July 20, 1889; July 25, 1890; June 5, 1891.

614. P. erectum L.

Yards, very common. September 7, 1888; August 21, 1889; July 25, 1890; June 20, 1891.

615. P. lapathifolium L.

Wet places, rather rare; Licking Reservoir. August 26, 1890; August 9, 1891.

616. P. lapathifolium L. Var. incarnatum Watson.

Wet places, rare; Licking Reservoir. August 9, 1891.

617. P. Pennsylvanicum L.

Moist soil, common. August 27, 1888; September 14, 1889; June 15, 1891.

618. P. amphibium L.

Growing in shallow water, rare; Licking Reservoir. August 10, 1891.

619. P. Muhlenbergii Watson.

Growing in shallow water, common at Licking Reservoir.

August 28, 1888; September 14, 1889; August 24, 1890; August 8, 1891.

620. P. Hartwrightii Gray.

Lieb's Island, New Reservoir; very rare.

621. P. Careyi Olney.

Herbarium of Dr. F. O. Jacobs.

622. P. *orientale* L. Prince's Feather.

Sparingly escaped into waste places. September 9, 1891.

623. P. *Persicaria* L. Lady's Thumb.

Common everywhere. August 27, 1888; August 8, 1891.

624. P. hydropiperoides Michx. Wild Water Pepper.

Wet places, not common; Granger's Swamp. August 31, 1891.

625. P. Hydropiper L. Common Smartweed.

Moist soil, everywhere. August 27, 1887; August 28, 1888; July 9, 1890; July 25, 1891.

626. P. acre H B K. Water Smartweed.

Swamps, rather common. August 23, 1887; July 9, 1890; September 2, 1891.

627. P. Virginianum L.
Open woods in rich soil, not rare. August 20, 1887; August 20, 1890; August 24, 1891.

628. P. arifolium L. Halberd-leaved Tear-thumb.
Low grounds, common. August 8, 1887; August 4, 1890.

629. P. sagittatum L. Arrow-leaved Tear-thumb.
Low grounds, common. August 16, 1890.

630. P. *Convolvulus* L. Black Bindweed.
August 20, 1888; August 15, 1889.

631. P. dumetorum L. Var. scandens Gray.
September 2, 1887; September 16, 1890.

297. Fagopyrum Tourn.

632. F. *esculentum* Moench. Buckwheat.
Spontaneous in waste places. August 6, 1890.

LXXIV. ARISTOLOCHIACEAE.

298. Asarum Tourn.

633. A. Canadense L. Wild Ginger.
Damp woods, somewhat rare; Gravel Pit. May 6, 1887; May 10, 1890; June 13, 1891.

299. Aristolochia Tourn.

634. A. Serpentaria L. Virginia Snakeroot.
Rich woods, somewhat rare but widely scattered.

LXXV. LAURACEAE.

300. Sassafras Nees.

635. S. officinale Nees.
Rich woods, common. May 11, 1889.

301. Lindera Thunb.

636. L. Benzoin Blume. Spice Bush.
Edges of swamps, rather common; Spring Valley. April 13, 1887; April 14, 1888; April 8, 1889; April 12, 1890; April 21, 1891.

LXXVI. THYMELAEACEAE.

302. Dirca L.

637. D. palustris L.

Ridge east of Lover's Lane, southwest of Newark. Herbarium of Dr. F. O. Jacobs.

LXXVII. SANTALACEAE.

303. Comandra Nutt.

638. C. umbellata Nutt.

Dry woods in eastern part of county. June 10, 1890.

LXXVIII. EUPHORBIACEAE.

304. Euphorbia L.

639. E. maculata L.

Gravelly soil, common. August 28, 1887; July 30, 1890; June 15, 1891.

640. E. Preslii Guss.

Gravelly soil, very common. July 19, 1887; August 21, 1889; August 2, 1870.

641. E. corollata L.

Rocky, wooded hillsides, rare; eastern part of county. August 14, 1890; July 15. 1891.

642. E. dentata Michx.

Rich soil, rare, Granville. August 30, 1890.

643. E. obtusata Pursh.

Herbarium of Dr. F. O. Jacobs.

644. E. *Cyparissias* L.

Escaped from cemeteries and gardens, common. June 4, 1884; June 1, 1889; April 30, 1891.

645. E. commutata Engelm.

Very rare, roadsides south of Newark. April 27, 1889; May 4, 1891.

305. Acalypha L.

646. A. Virginica L.

Common, roadsides, fields, etc. August 11, 1888; August 2, 1890; July 18, 1891.

LXXIX. URTICACEAE.

306. Ulmus L.

647. U. fulva Michx. Slippery Elm.

Generally distributed over the county. April 2, 1888; April 8, 1889; April 1, 1891.

648. U. Americana L. American or White Elm.

Found everywhere. April 7, 1888; January 20, 1890; April 1, 1891.

649. U. racemosa Thomas. Cork Elm.

Herbarium of Dr. F. O. Jacobs.

307. Celtis Tourn.

650. C. occidentalis L. Sugarberry. Hackberry.

Generally distributed. There are several trees along Broadway, Granville. May 6, 1890.

308. Cannabis Tourn.

651. C. *sativa* L. Hemp.

Roadsides and waste places; Newark and Alexandria.

309. Humulus L.

652. H. Lupulus L. Common Hop.

Alluvial soil, rare; Canal bank, Toboso; creek bank, Alexandria. August 25, 1890.

310. Maclura Nutt.

653. M. aurantiaca Nutt. Osage Orange.

Frequently escaped into thickets from cultivation.

311. Morus Tourn.

654. M. rubra L. Red Mulberry.

Woods, rather common. May 28, 1888; June 4, 1889; May 26, 1890.

655. M. *alba* L. White Mulberry.

Roadsides, fields, etc., somewhat common. June 1, 1890; May 14, 1891.

312. Urtica Tourn.

656. U. gracilis Ait. Nettle.
Waste places everywhere. August 11, 1888; July 22, 1890.

313. Laportea Gaudichaud.

657. L. Canadensis Gaudichaud. Wood Nettle.
Woods, common. July 25, 1887; August 8, 1890; August 24, 1891.

314. Pilea Lindl.

658. P. pumila Gray. Richweed.
Moist places. August 1, 1888; August 15, 1890.

315. Boehmeria Jacq.

659. B. cylindrica Willd.
Woods and swamps, very variable according to location. July 27, 1887; July 30, 1890; August 31, 1891.

316. Parietaria Tourn.

660. P. Pennsylvanica Muhl.
Woods, common. June 6, 1888; June 25, 1890.

LXXX. PLATANACEAE.

317. Platanus L.

661. P. occidentalis L. Sycamore.
Creek banks, common. June 2, 1888; May 11, 1889.

LXXXI. JUGLANDACEAE.

318. Juglans L.

662. J. cinerea L. Butternut.
Rich woods, common.

663. J. nigra L. Black Walnut.
Rich woods, common.

319. Carya Nutt.

664. C. alba Nutt. Shell-bark Hickory.
Woods and fields, common.

665. C. sulcata Nutt. Big Shell-bark.
Herbarium of Dr. F. O. Jacobs.

666. C. porcina Nutt. Pignut.
Open woods, common.

LXXXII. CUPULIFERAE.

320. Alnus Tourn.

667. A. incana Willd. Speckled Alder.
Borders of streams, rare; Cranberry Marsh, Old Reservoir, Rain Rock, Eden Township.

321. Corylus Tourn.

668. C. Americana Walt.
Reservoir, Lover's Lane, etc. Various soils.

322. Ostrya Micheli.

669. O. Virginica Willd. Hop Horn-beam. Lever-Wood.
Moist woods, generally distribuled. April 21, 1891.

323. Carpinus L.

670. C. Caroliniana Walter. Blue or Water Beech.
Rocky banks of streams, common. April 4, 1890.

324. Quercus L.

671. Q. alba L. White Oak.
Common everywhere.

672. Q. macrocarpa Michx. Bur Oak.
Rich soil, common.

673. Q. bicolor Willd. Swamp White Oak.
Rocky banks of streams; Spring Valley.

674. Q. Prinus L. Chestnut Oak.
Rocky soil, rare; Flint Ridge.

675. Q. rubra L. Red Oak.
Woods, common.

676. Q. coccinea Wang. Scarlet Oak.
Woods, common.

677. Q. coccinea Wang. Var. tinctoria Gray.
Woods, common; Spring Valley.

678. Q. palustris Du Roi. Swamp or Pin Oak.
Banks of New Reservoir.

325. CASTANEA Tourn.

679. C. sativa Mill. Var. Americana Watson. Chestnut.
Rocky woods, common.

326. FAGUS Tourn.

680. F. ferruginea Ait. American Beech.
Woods; our most common tree. May 2, 1888; May 6, 1890; April 25, 1891.

LXXXIII. SALICACEAE.

327. SALIX Tourn.

681. S. nigra Marsh. Black Willow.
Creek banks, common. May 19, 1890; May 13, 1891.

682. S. *fragilis* L. Crack Willow.
Along streams, somewhat rare, south of Granville. May 2, 1891.

683. S. *alba* L. Var. *vitellina* Koch.
Along streams, common. April 30, 1890; May 9, 1891.

684. S. longifolia Muhl.
Along streams, somewhat rare; southeast of Newark. May 9, 1891.

685. S. discolor Muhl. Glaucous Willow.
Creek banks and edges of swamps, common. April 4, 1889; April 11, 1890; April 17, 1891.

686. S. humilis Marsh. Prairie Willow.
Rocky banks and hillsides, rare; Pine Hill, Vanattasburg. April 25, 1891.

687. S. *purpurea* L. Purple Willow.
Creek banks, Granville. April 7, 1888. Herbarium of C. J. Herrick.

688. S. cordata Muhl. Heart-leaved Willow.
River and creek banks, rather common; Worthington Bridge near Granville, Licking River near Toboso.

328. POPULUS Tourn.

689. P. *alba* L. White Poplar.
Common. April 2, 1888; April 15, 1889; April 17, 1891.

690. P. tremuloides Michx. American Aspen.

Herbarium of Denison University. April 12, 1887; April 2, 1889.

691. P. grandidentata Michx. Large-toothed Aspen.

Rocky woods, common in eastern part of county. April 18, 1891.

692. P. basamifera L. Var. candicans Gray. Balm of Gilead.

A few scattered trees throughout the county. April 5, 1890; April 18, 1891.

693. P. monilifera Ait. Cotton-wood.

Creek banks, common. April 19, 1889; April 18, 1891.

LXXXIV. CONIFERAE.

329. Pinus Tourn.

694. P. rigida Mill. Pitch Pine.

Dry, rocky hillsides, rare; Pine Hill, Vanattasburg.

695. P. inops Ait. Jersey or Scrub Pine.

Dry, rocky hills, rare; Toboso.

330. Tsuga Carriere.

696. T. Canadensis Carr. Hemlock.

Dry, rocky hillsides, rare; Spruce Hill and Toboso.

331. Larix Tourn.

697. L. Americana Michx. Tamarack.

It is doubtful whether this species occurs native here, although it has been reported. It is, however, common in cultivation.

332. Juniperus L.

698. J. communis L. Common Juniper.

Dry, rocky woods, especially in clearings, common.

699. J. Virginiana L. Red Cedar.

Similar situation to the last.

LXXXV. HYDROCHARIDACEAE.

333. Vallisneria L.

700. V. spiralis L. Eel Grass. Tape Grass.

Abundant in the Licking Reservoir and the Ohio Canal. August 22, 1890; August 8, 1891.

LXXXVI. ORCHIDACEAE.

334. Liparis Richard.

701. L. liliifolia Richard.
Moist woods, rare, (Station 6). June 30, 1890.

335. Aplectrum Nutt.

702. A. hiemale Nutt. Putty-root. Adam and Eve.
Ridge east of Lover's Lane, two miles southwest of Newark. Herbarium of Dr. F. O. Jacobs.

336. Corallorhiza Haller.

703. C. odontorrhiza Nutt.
Same locality as 702. Herbarium of Dr. F. O. Jacobs.

704. C. multiflora Nutt.
Rich woods, rare, (Station 8.) August 4, 1890.

337. Spiranthes Bigelow.

705. S. gracilis Bigelow.
Dry, rocky hillsides, rather common; western end of the Campus of Denison University. August 27, 1888; September 21, 1890; August 31, 1891.

338. Goodyera R. Br.

706. G. repens R. Br.
Eastern part of county. Herbarium of Dr. F. O. Jacobs.

707. G. pubescens R. Br.
Dry, rocky woods, rather common; Welsh Hills, Lover's Lane and Toboso. August 4, 1891.

339. Arethusa Gronov.

708. A. bulbosa L.
Peat bogs, very rare; Cranberry Marsh, Old Reservoir. May 16, 1891.

340. Calopogon R. Br.

709. C. pulchellus R. Br.
Peat bogs, very rare; Cranberry Marsh, Old Reservoir. June 20, 1890.

341. Pogonia Juss.

710. P. ophioglossoides Nutt.

Peat bogs, very rare; Cranberry Marsh, Old Reservoir. June 20, 1890.

711. P. pendula Lindl.

Deep, rich woods, rare; one-half mile northeast of house of Mr. W. A. Castle, west of Alexandria, and a few other places in St. Albans township. July 28, 1890.

342. Orchis L.

712. O. spectabilis L. Showy Orchid.

Rich woods, our moist common orchid, especially abundant in the deep woods of Welsh Hills. May 19, 1888; May 20, 1890; May 18, 1891.

713. O. rotundifolia Pursh.

Deep, rich woods, very rare. Prof. W. G. Tight found a single specimen of this plant in the Welsh Hills, May 18, 1891.

343. Habenaria Willd.

714. H. tridentata Hook.

Peat bogs, very rare; Cranberry Marsh, Old Reservoir. August 8, 1891.

715. H. orbiculata Torr.

Deep, rich woods, rare; Welsh Hills. June 15, 1891.

716. H. lacera R. Br. Ragged Fringed Orchis.

Herbarium of Dr. F. O. Jacobs.

717. H. psycodes Gray.

Swamps, rare; Spring Valley, swamp one mile southwest of Alexandria. July 22, 1890; August 4, 1891.

344. Cypripedium L.

718. C. parviflorum Salisb. Smaller Yellow Lady's Slipper.

There is a specimen of this in the High School Herbarium at Granville, collected in Mary Ann Township.

719. C. pubescens Willd. Larger Yellow Lady's Slipper.

Rich, deep, woods, rare; Welsh Hills, especially in the large tract of woods north of the Fort Hill Farm. These woods are now owned by Mrs. Roderick Jones. May 14, 1891.

720. C. spectabile Salisb. Showy Lady's Slipper.
Herbarium of Dr. F. O. Jacobs.

721. C. acaule Ait. Stemless Lady's Slipper.
This species formerly occurred in the college woods and other woods in the immediate vicinity of Granville, but no specimens, to my knowledge, have been found in the county for a number of years. It is possibly extinct, although it occurs in Fairfield county in several places. No herbarium specimen.

LXXXVII. IRIDACEAE.

345. Iris Tourn.

722. I. versicolor. L. Larger Blue Flag.
Swamps and moist soil, rather common, especially in the southern part of the county. May 31, 1890.

723. I. lacustris Nutt. Lake Dwarf Iris.
In Beardslee's Catalogue of the Plants of Ohio, it is stated that this species occurs at the Licking Reservoir. It has not been found there in recent years.

346. Sisyrinchium L.

724. S. angustifolium Mill. Blue-eyed Grass.
Moist, grassy meadows, somewhat rare; Welsh Hills. June 4, 1890; May 30, 1891.

LXXXVIII. AMARYLLIDACEAE.

347. Hypoxis L.

725. H. erecta L. Star Grass.
Rocky banks, somewhat common. May 28, 1890.

LXXXIX. DIOSCOREACEAE.

348. Dioscorea Plumier.

726. D. villosa L. Wild Yam-root.
Woods, somewhat rare; Granville and Newark townships. July 4, 1890.

XC. LILIACEAE.

349. Smilax Tourn.

727. S. herbacea L. Carrion Flower.
Generally distributed but rarely found in dry soil. June 4, 1890.

728. S. ecirrhata Watson.
Rich woods, rare; woods one-half mile northeast of the home of Mr. W. A. Castle and two miles west of Alexandria, (Station 8).

729. S. rotundifolia L. Var. quadrangularis Gray.
Common, especially in the eastern part of the county.

730. S. glauca Walt
Dry, rocky hillsides, common in eastern part of the county.

731. S. bona-nox L.
Dry, rocky hills, wooded, rare; Toboso.

732. S. hispida Muhl.
Moist thickets, common. June 4, 1888; June 2, 1890.

350. Allium L.

733. A. tricoccum Ait. Wild Leek.
Rich woods, somewhat common. June 12, 1890.

734. A. Canadense Kalm. Wild Garlic.
Moist soil, somewhat common. June 20, 1890; June 12, 1891.

351. Camassia Lindt.

735. C. Fraseri Torr. Wild Hyacinth.
Grassy hillsides and woodlands, rare; New Cemetery, Granville. May 23, 1884; May 24, 1887; May 24, 1889; May 13, 1890. April 30, 1891.

352. Ornithogalum Tourn.

736. O. *umbellatum* L. Star-of-Bethlehem.
Escaped to roadsides, common, May 22, 1884; May 30, 1891.

353. Hemerocallis L.

737. H. *fulva* L. Common Day-Lily.
Old gardens and along the roads, common. July 5, 1889; June 6, 1890; July 7, 1891.

354. Polygonatum Tourn.

738. P. biflorum Ell. Smaller Solomon's Seal.

Open woods, common, very variable. May 13, 1884; May 15, 1887; June 5, 1889; May 20, 1890; May 18, 1891.

739. P. giganteum Dietrich. Great Solomon's Seal.

Roadsides and creek banks, sommon. June 12, 1888; May 17, 1890; June 20, 1891.

355. Asparagus Tourn.

740. A. *officinalis* L. Garden Asparagus.

Roadsides and fields, common. May 28, 1890.

356. Smilacina Desf.

741. S. racemosa Desf. False Spikenard.

Open woods, common. May 23, 1887; May 19, 1888; May 24, 1889; May 14, 1891.

357. Maianthemum Wigg.

742. M. Canadense Desf.

Rocky hillsides, moist soil, very rare. Spruce Hill. May 20, 1891.

358. Disporum Salisb.

743. D. lanuginosum Benth. and Hook.

Rich woods, somewhat rare. May 19, 1888; May 22, 1890; May 18, 1891.

559. Uvularia L.

744. U. perfoliata L.

Woods, somewhat common, especially Welsh Hills. May 16, 1890; May 18, 1891.

745. U. grandiflora Smith.

Woods, somewhat common. May 6, 1887. May 30, 1891.

360. Erythronium L.

746. E. Americanum Ker. Yellow Adder's-tongue.

Rich, open woods, common. April 16, 1887; April 20, 1889; April 16, 1891.

747. E. albidum Nutt. White Dog's-tooth Violet.

Rich, open woods, creek banks, etc., common. April 30, 1887; April 20, 1889; April 18, 1891.

361. Lilium L.

748. L. superbum L. Turk's-cap Lily.

Creek banks and moist meadows, somewhat rare; Worthington bridge, west of Granville, etc. July 3, 1889; June 25, 1890.

749. L. Canadense L. Wild Yellow Lily.

Herbarium of Dr. F. O. Jacobs.

362. Medeola Gronov.

750. M. Virginiana L. Indian Cucumber-root.

Moist woods, somewhat rare; Welsh Hills, etc. May 26, 1890; May 25, 1891.

363. Trillium L.

751. T. sessile L.

Creek banks, moist woods, etc., common. May 8, 1884; April April 30, 1887; April 17, 1890; April 18, 1891.

752. T. erectum L.

Rich woods, rare; woods of Christopher Starks in the southwest part of Granville Township, ridge immediately east of Arbutus Ridge near T. & O. C. R. R. track. May 8, 1884; May 20, 1887; May 10, 1890; May 4, 1891.

753. T. grandiflorum Salisb.

Rich woods, common, growing in large masses in many parts of Welsh Hills. May 7, 1884; April 30, 1887; April 29, 1889; April 15, 1890; April 21, 1891.

754. T. cernuum L.

Herbarium of Dr. F. O. Jacobs.

364. Chamaelirium Willd.

755. C. Carolinianum Willd. Blazing Star.

Rocky hillsides, very rare; Arbutus Ridge. June 10, 1890.

365. Stenanthium Gray.

756. S. robustum Watson.

Moist banks, rare; near the road between Newark and Granville over the Welsh Hills. June 26, 1890.

XCI. PONTEDERIACEAE.

366. Pontederia L.

757. P. cordata L.

Growing in shallow water in the eastern part of the Old Reservoir. August 26, 1890; August 8, 1891.

367. Heteranthera Rinz and Pav.

758. H. graminea Vahl.

Growing both in shallow water and along the muddy banks of New Reservoir and also in the Ohio Canal at Newark and other places. August 4, 1890; August 8, 1891.

XCII. COMMELINACEAE.

368. Tradescantia L.

759. T. Virginica L. Common Spiderwort.

Rich soil, especially along the edges of swamps, rare; Newark township. May 25, 1890.

XCIII. JUNCACEAE.

369. Juncus Tourn.

760. J. effusus L. Common or Soft Rush.

Moist soil; Licking Reservoir. August 22, 1890.

761. J. filiformis L.

Moist soil. May 24, 1890.

762. J. tenuis Willd.

Fields and moist places, common. May 27, 1890.

763. J. bufonius L.

Moist soil along trodden paths; Alexandria. June 12, 1891.

764. J. acuminatus Michx.

Wet places, somewhat common; Granville and Licking Reservoir. Reported by Mr. W. C. Werner.

765. J. nodosus L. Var. megacephalus Torr.

Licking Reservoir. Reported by Mr. W. C. Werner.

370. Luzula D C.

766. L. vernalis D C.

Somewhat rare, banks near Granville. May 1, 1891.

767. L. campestris D C.

Dry, wooded banks, generally in rocky soil, common. April 22, 1889; May 2, 1891.

XCIV. TYPHACEAE.

371. Typha Tourn.

768. T. latifolia L. Common Cat-tail.

Swamps, common. July 8, 1888; July 18, 1889; July 2, 1891.

372. Sparganium Tourn.

769. S. eurycarpum Engelm.

Swamps, common. June 22, 1889; July 19, 1891.

770. S. simplex Huds. Var. androcladum. Engelm.

Swamps, less common than last. June 29, 1890.

XCV. ARACEAE.

373. Arisaema Martius.

771. A. triphyllum Torr. Indian Turnip.

Woods, common. May 16, 1887; May 7, 1889; May 17, 1890; April 30, 1891.

772. A. Dracontium Schott Green Dragon. Dragon-root.

Moist soil, rare. June 11, 1888; June 19, 1890.

374. Peltandra Raf.

773. P. undulata Raf.

Growing in shallow water in the Old Reservoir on the edges of the Cranberry Marsh. June 20, 1890.

375. Symplocarpus Salisb.

774. S. foetidus Salisb.

Swamps, common. May 16, 1887; April 7, 1888; April 8, 1889; February 26, 1890; March 20, 1891.

376. Acorus L.

775. A. Calamus L. Sweet Flag.

This formerly occurred in swamps in the central part of county,

but has not been collected recently. It is possible that it is extinct. No herbarium specimen.

XCVI. LEMNACEAE.

377. Spirodela Schleiden.

776. S. polyrrhiza Schleid.
Swamps, ponds, etc., common.

378. Lemna L.

777. L. trisulca L.
Licking Reservoir. Reported by W. C. Werner.

778. L. minor L.
Licking Reservoir and grounds, common.

379. Wolffia Horkel.

779. W. Columbiana Karsten.
In the pool just south of the Lakeside Hotel at the Licking Reservoir. This is in Fairfield county, just over the line.

XCVII. ALISMACEAE.

380. Alisma L.

780. A. Plantago L.
Wet places, common. August 15, 1888; July 4, 1890.

381. Sagittaria L.

781. S. variabilis Engelm.
Licking Reservoir, very common. The following varieties are to be found in the Reservoir and Licking River.

782. Var. obtusa Gray.
783. Var. latifolia Gray.
784. Var. angustifolia Gray.
785. Var. gracilis Engelm. Licking River at Toboso.

786. S. heterophylla Pursh.
Wet places, rather common. July 9, 1889; August 10, 1891.

787. S. heterophylla Pursh. Var. rigida Engelm.
Shallow water in the canal at Newark. September 1, 1891.

788. S. heterophylla Pursh. Var. angustifolia, Engelm.
Reservoir, rare. July 9, 1889.

XCVIII. NAIADACEAE.

382. Potamogeton Tourn.

789. P. natans L.

Floating in the water in the Licking Reservoir. August 28, 1888; August 4, 1890; August 8, 1891.

790. P. pectinatus L.

Floating in the water in the Licking Reservoir and the Ohio Canal. August 22, 1890.

XCIX. CYPERACEAE.

383. Cyperus.

791. C. flavescens L.

Swamps, somewhat rare; Everett's Swamp near Granville. August.

792. C. diandrus Torr.

Moist places. August.

793. C. aristatus Rottb.

Licking Reservoir, common along the muddy shores. August.

794. C. esculentus L.

Licking Reservoir and moist soil along roadsides throughout the county. July and August.

795. C. strigosus L.

Moist soil, Licking Reservoir and Granville. August.

384. Dulichium Pers.

796. D. spathaceum Pers.

Cranberry Marsh, New Reservoir. August.

385. Eleocharis R. Br.

797. E. ovata R. Br.

Moist places, Licking Reservoir and Granville. July and August.

798. E. palustris R Br.

Moist places, Licking Reservoir and Roadsides near Granville. June, August.

799. E. acicularis R. Br.

Muddy banks of the Licking Reservoir. August.

386. Scirpus Tourn.

800. S. pungens Vahl.

Newark, growing in the shallow water of the canal. August and September.

801. S. lacustris L. Great Bulrush.

Very common in the Licking Reservoir, very variable as to height and size of spikelets. August.

802. S. fluviatilis Gray.

Licking Reservoir. August.

803. S. atrovirens Muhl.

Wet soil, Granger's Swamp, near Granville and roadside near Station 16. June.

804. S. polyphyllus Vahl.

Wet soil, roadsides near Kirkersville Station and foot of Pine Hill, Vanattasburg. August.

387. Eriophorum L.

805. E. lineatum Benth. and Hook.

Wet soil, roadside near Station 16. June.

806. E. cyperinum L. Wool Grass.

Licking Reservoir. August.

807. E. Virginicum L.

Cranberry Marsh, New Reservoir. June.

388. Rhynchospora Vahl.

808. R. alba Vahl.

Licking Reservoir. Reported by Mr. W. C. Werner.

809. R. glomerata Vahl.

Licking Reservoir. August.

389. Carex Ruppius.

810. C. intumescens Rudge.

Alexandria. July.

811. C. Grayii Carey.

Licking Reservoir. Reported by Mr. W. C. Werner.

812. C. lupulina Muhl.

Licking Reservoir, wet places. August.

813. C. utriculata Boott.
Granger's Swamp, Granville. June and July.

814. C. lurida Wahl.
Swamps, common. June, August.

815. C. hystricina Muhl.
Licking Reservoir. Reported by Mr. W. C. Werner.

816. C. Pseudo-Cyperus L.
Banks of stream in Goodrich's woods near Granville. May and June.

817. C. Pseudo-Cyperus L. Var. Americana Hochst.
Licking Reservoir. August.

818. C. stenolepis Torr.
Wet places, Granville and Alexandria. July.

819. C. squarrosa L.
Wet places, Licking Reservoir and Toboso. July and August.

820. C. Shortiana Dewey.
Moist places, common. June.

821. C. trichocarpa Muhl.
Wet places, Alexandria. July.

822. C. prasina Wahl.
Wet places, Goodrich's woods near Granville. April and May.

823. C. virescens Muhl.
Near Newark. June.

824. C. gracillima Schwein.
Wet places, Alexandria. July.

825. C. Davisii Schwein and Torr.
Moist soil, Station 3. May and June.

826. C. granularis Muhl.
Wet places, swamps, common. May, August.

827. C. oligocarpa Schkuhr.
Gravelly banks, Station 3, Granville and Alexandria. July.

828. C. laxiflora Lam.
Goodrich's woods north of Granville. May.

829. C. laxiflora Lam. Var. varians Bailey.
Grassy places along the sidewalks in Granville. June.

830. C. laxiflora Lam. Var. patulifolia Carey.

Grassy woods, Station 6. May.

831. C. laxiflora Lam. Var. styloflexa Boott.
Gravelly woods, Station 5. May.

832. C. platyphylla Carey.
Rocky, wooded banks, Arbutus Ridge, Granville. May.

833. C. plantaginea Lam.
Woods on Campus of Denison University, Granville. May.

834. C. varia Muhl.
Goodrich's woods north of Granville. May.

835. C. Pennsylvanica Lam.
Dry hillsides, Spring Valley. May.

836. C. stipata Muhl.
Goodrich's woods north of Granville. May.

837. C. vulpinoidea Michx.
Wet places, common.

838. C. rosea Schkuhr.
Dry woods, Welsh Hills. May and June.

839. C. sparganioides Muhl.
Gravelly banks, Station 3. May and June.

840. C. cephalophora Muhl.
Dry woods, Welsh Hills. June and July.

841. C. bromoides Schkuhr.
Moist places. Herbarium of Prof. C. J. Herrick. May and June.

842. C. tribuloides Wahl.
Moist places. Licking Reservoir and Alexandria. July.

C. GRAMINEAE.

390. Panicum L.

843. P. sanguinale L. Crab or Finger Grass.
Around buildings and in waste places, common.

844. P. proliferum Lam.
Licking Reservoir. Authority of Prof. W. C. Werner.

845. P. capillare L. Old Witch Grass.
Common everywhere, especially in rocky soil.

846. P. agrostoides Muhl.
Along the banks of the Licking Reservoir.

847. P. latifolium L.
Open woods, somewhat common.

845. P. clandestinum L.
Moist banks, somewhat common.

849. P. dichotomum L.
Common everywhere.

850. P. *Crus-galli* L. Barnyard Grass.
Around barns, etc. It also grows in shallow parts of the Old Reservoir around the small islands.

491. Setaria.

851. S. *verticillata* Beauv.
Waste places, common.

852. S. *glauca* Beauv. Foxtail. Pigeon Grass.
Cultivated grounds everywhere.

853. S. *viridis* Beanv. Green Foxtail.
Cultivated grounds, common.

392. Cenchrus.

854. C. tribuloides L. Hedgehog or Bur Grass.
Along the B. & O. R. R. near Toboso.

393. Leersia Swartz.

855. L. Virginica Willd. White Grass.
Moist, open woods.

856. L. oryzoides Swartz. Rice Cut-Grass.
Swamps, very common.

394. Zizania Gronov.

857. Z. aquatica L. Indian Rice. Water Oats.
In shallow water, rare; Ohio Canal at Toboso, Lakeside, where it has been planted. Prof. W. C. Werner also reports finding it on one of the islands in the Old Reservoir.

395. Andropogon Royen.

858. A. scoparius Michx.
Moist places, rare; Pine Hill, Vanattasburg.

396. Phalaris L.

859. P. arundinacea L. Reed Canary Grass.
Swamps, somewhat rare; Granger's Swamp.

397. Milium Tourn.

860. M. effusum L.
Alexandria.

398. Muhlenbergia Schreber.

861. M. sobolifera Trin.
Dry, rocky woods, rare; Toboso.

862. M. Mexicana Trin.
Low grounds, common.

863. M. sylvatica Torr. and Gray.
Open, rocky woods, somewhat rare; Pine Hill, Vanattasburg.

864. M. diffusa Schreber.
Open woods, common.

399. Brachyelytrum Beauv.

865. B. aristatum Beauv.
Dry, rocky woods, common in eastern part of county.

400. Phleum L.

866. P. *pratense* L. Timothy.
Meadows, cultivated everywhere throughout the county.

401. Alopecurus L.

867. A. geniculatus L. Var. aristulatus Torr.
Swamps, rare; Granville.

402. Agrostis L.

868. A. *alba* L. White Bent Grass.
Fields, common.

869. A. *alba* L. Var. *vulgaris* Thurb. Red Top.
Fields, common.

870. A. perennans Tuckerm. Thin Grass.
Moist hillsides, wooded, somewhat common.

871. A. scabra Willd. Hair Grass.
Dry, open woods, somewhat rare; Toboso.

403. Cinna L.

872. C. arundinacea L.
Moist woods, common.

404. Avena Tourn.

873. A. fatua L.
Herbarium of Prof. W. E. Castle, Alexandria.

405. Danthonia D C.

874. D. spicata Beauv.
Dry soil, somewhat common.

406. Cynodon Richard.

875. C. *Dactylon* Pers.
Herbarium of Denison University.

707. Eleusine Gaertn.

876. E. *Indica* Gaertn. Dog's-tail or Wire Grass.
Yards and waste places, common.

408. Triodia R. Br.

877. T. cuprea Jacq. Tall Red Top.
Toboso, rare.

409. Eatonia Raf.

878. E. Pennsylvanica Gray.
Woods, somewhat common.

410. Eragrostis Beauv.

879, E. reptans Nees.
Banks of Reservoir.

880. E. *minor* Host.
Around out buildings, rare; Alexandria.

881. E. *major* Host.
Waste places and along sidewalks, common.

882. E. *pilosa* Beauv.
Along the gravelly walks of College Campus, Granville, and banks of Licking Reservoir.

883. E. Frankii Meyer.
Fields, Granville.

884. E. Purshii Schrader.
Licking Reservoir, Herbarium of Prof. W. C. Werner.

885. E. capillaris Nees.
Fields, Granville.

411. Diarrhena Raf.

886. D. Americana Beauv.
Gravelly banks, rare; Station 3, Granville.

412. Dactylis L.

887. D. *glomerata* L. Orchard Grass.
Fields, common.

413. Poa L.

888. P. *annua* L. Low Spear Grass.
Common everywhere. In blossom during nearly every month in the year.

889. P. *compressa* L. Wire Grass. English Blue Grass.
Roadsides and waste places, everywhere.

890. P. serotina Ehrhart. Fowl Meadow Grass.
Especially abundant at Licking Reservoir.

891. P. pratensis L. June Grass. Kentucky Blue Grass.
Common everywhere.

892. P. flexuosa Muhl.
Gravelly soil, woods, rare; Station 5, near Granville.

414. Glyceria R. Br.

893. G. Canadensis Trin. Rattlesnake Grass.
Moist places, somewhat rare; Alexandria.

894. G. elongata Trin.
Gravelly woods, rather common.

895. G. nervata Trin. Fowl Meadow Grass.
Fields, common.

896. G. pallida Trin.
Moist places, somewhat common.

897. G. fluitans R. Br.
Reservoir and a few other localities.

898. G. acutiflora Torr.
Swamps, rare; near T. & O. C. R. R. depot, Granville.

415. Festuca L.

899. F. nutans Willd.
Woods, Alexandria.

900. F. *elatior* L. Var. *pratensis* Gray.
Herbarium of Prof. W. E. Castle, Alexandria.

416. Bromus L.

901. B. *secalinus* L. Cheat or Chess.
Wheat fields, common.

902. B. *mollis* L. Soft Chess.
Fields and waste places, common.

903. B. ciliatus L.
River banks, somewhat rare; Toboso.

904. B. ciliatus L. Var. purgans Gray.
Lover's Lane south of Newark on bank of creek.

905. B. *tectorum* L.
Fields, very rare; Alexandria.

417. Lolium L.

906. L. *perenne* L. Common Darnel. Rye Grass.
Along sidewalks in Granville.

418. Agropyrum Gaertn.

907. A. repens Beauv. Couch, or Quick Grass.
Cultivated grounds, common.

419. Elymus L.

908. E. Virginicus L.
Banks of Licking Reservoir, Licking River, etc.

909. E. Canadensis L.
Creek banks at Granville and elsewhere, common.

910. E. striatus Willd. Var. Villosus Gray.
Alexandria, rare.

420. Asparella Willd.

911. A. Hystrix Willd. Bottle Brush-Grass.
Gravelly banks, rare; Station 3, Granville.

CI. EQUISETACEAE.

421. Equisetum L.

912. E. arvense L. Common Horsetail.
Creek banks in sandy or gravelly soil, common.

913. E. limosum L.
River banks, rare; Licking River at Toboso.

914. E. hyemale L. Scouring-rush.
Creek banks, common.

CII. FILICES.

422. Polypodium.

915. P. vulgare L.
Sandstone rocks, common in the eastern part of the county.

423. Adiantum L.

916. A. pedatum L.
Rich woods, common.

424. Pteris L.

917. P. aquilina L. Common Brake.
Rocky hillsides, somewhat rare; Toboso.

425. Asplenium L.

918. A. pinnatifidum Nutt.
Dry rocks, very rare; Red Rock and Black Hand Rock, Toboso.

919. A. Trichomanes L.
Rocks, common in eastern part of county.

920. A. ebeneum Ait.
Rocky woods, common in eastern part of county, found also at Arbutus Ridge, Granville.

921. A. angustifolium Michx.
Woods, somewhat common.

922. A. thelypteroides Michx.
Wooded banks, somewhat common.

923. A. Filix-foemina Bernh.
Moist woods, common.

426. Camptosorus Link.

924. C. rhizophyllus Link.
Sandstone rocks, very rare; Stations 14 and 16.

427. Phegopteris Fée.

925. P. hexagonoptera Fée.
Woods and fields, common. This varies greatly with forms approaching P. polypodioides Fée. The latter species has not been found.

428. Aspidium Swartz.

926. A. Thelypteris Swartz.
Swamps, common.

927. A. Noveboracense Swartz.
Moist, rich woods, somewhat common.

928. A. spinulosum Swartz.
Woods, especially damp soil, somewhat common.

929. A. Goldianum Hook.
Woods, rare. Herbarium of Prof. C. J. Herrick.

930. A. marginale Swartz.
Rocky, wooded hillsides, very common.

931. A. acrostichoides Swartz. Christmas Fern.
Rocky woods, very common.

932. A. acrostichoides Swartz. Var. incisum Gray.
Rocky woods, rare. Station 4.

429. Cystopteris Bernhardi.

933. C. bulbifera Bernh.
Sandstone rocks, ravines; etc., near Toboso.

934. C. fragilis Bernh.
Fields, woods, etc., common.

430. Onoclea L.

935. O. sensibilis L. Sensitive Fern.
Damp woods, somewhat common.

431. Woodsia R. Brown.

936. W. Ilvensis R. Brown.
Sandstone rocks, very rare; Toboso.

937. W. obtusa Torr.
Sandstone rocks, rare; Station 16.

432. Osmunda L.

938. O. regalis L. Flowering Fern.
Cranberry Marsh, Old Reservoir, rare.

939. O. Claytoniana L.
Damp soil, especially moist woods, common.

940. O. cinnamomea L. Cinnamon Fern.
Cranberry Marsh, Old Reservoir, rare.

CIII. OPHIOGLOSSACEAE.

433. Botrychium Swartz.

941. P. ternatum Swartz. Var. intermedium Gray.
Rich woods, rare; woods of Mr. Moses Goodrich, one mile north of Granville.

942. B. Virginianum Swartz.
Rich woods, common.

CIV. LYCOPODIACEAE.

434. Lycopodium L.

943. L. lucidulum Michx.
Rocky woods; rare; Stations 12 and 17.

944. L. obscurum L.
Rocky banks, wooded, rare; Spring Valley, Granville.

945. L. complanatum L. Ground-Pine.
Woods, somewhat rare, Welsh Hills.

Distribution as to Soil.

Dry, rocky woods,	71	species.
Rocky, wooded hillsides, but not dry,	55	"
Rocky hillsides, not wooded,	10	"
Bare sandstone rocks,	16	"
Open woods,	72	"
Rich woods, much shade,	116	"
Alluvial soil, river banks, etc.,	111	"
Sandy or gravelly soil, not alluvial,	25	"
Swamps and shallow water,	174	"
Floating or in deep water,	22	"
Meadows, fields and roadsides,	131	"
Waste places and cultivated grounds,	89	"
Found in various soils, generally distributed,	53	"
Total number of species and varieties,	945	

Comparison With Other Ohio Floras.

	Orders	Genera	Species	Native Species	Introd'cd Species.
Licking County,	104	434	945	813	132
Lorain County,	104	412	873	763	110
Franklin County,	130	442	1002	850	152
Fairfield County,	120	429	854	772	82
Cincinnati & vicinity	110	424	933	739	125

Number of species common to Licking and Lorain Counties,		672.
" " " " " " "	Franklin "	745.
" " " " " " "	Fairfield "	625.
" " " " " " "	Cincinnati,	690.

In the above the word species stands for varieties as well, it being difficult to separate them in the different synonymy.

The geographical situations of the above counties are as follows: Licking county is about the centre of the State, Fairfield county being the adjacent county on the south, while Franklin is adjacent on the west. Lorain county borders on Lake Erie, while the Cincinnati Flora includes the territory surrounding Cincinnati on both sides of the Ohio River.

ERRATA.

Page 7, line 17, for Fatula read Tatula.
" 7, line 26, for Art read Ait.
" 8, line 11, for Elmus read Ulmus.
" 14, line 4, for ruba read rubra.
" 15, line 4 from bottom, for Smitit read Smith.
" 19, line 2, for *sinapistrum* read *Sinapistrum*.
" 22, line 13 from bottom, for PORTULACEAE read PORTULACACEAE.
" 22, line 11 from bottom, for Purlane read Purslane.
" 24, line 2, for Avisennae read Avicennae.
" 24, line 6 , for moschentos read Moschentos.
" 28, line 17 , for toxicodendron read Toxicodendron.
" 31, line 7, for Eell read Ell.
" 31, line 10 from bottom, for Narilandica read Marilandica.
" 32, line 9, for Ehr read Ehrh.
" 33, line 22, for Willd read L.
" 38, line 5 from bottom, for Purlane read Purslane.
" 38, line 2 from bottom, for Muht read Muhl.
" 39, line 15, for CIRRAEA read CIRCAEA.
" 40, line 3 from bottom, for octaefolium read actaeifolium.
" 40, line 3 from bottom, for Augelico read Angelico.
" 51, line 15, for Tuberosus read tuberosus.
" 56, line 17, for vaccillans read vacillans.
" 57, line 2 from bottom, for Touru read Tourn.
" 59, line 19, for Adams read Adans.
" 63, line 5, for SOLAMUM read SOLANUM
" 63, line 17, for Adams read Adans.
" 66, line 6 from bottom, for BRIGNONIACEAE read BIGNONIACEAE.
" 66, line 2, from bottom, for Jurs read Juss.
" 81, line 10, for odontorrhiza read odontorhiza.
" 98, line 2 from bottom, for Villosus read villosus.
" 99, line 1, for ASPARELLA read ASPRELLA.

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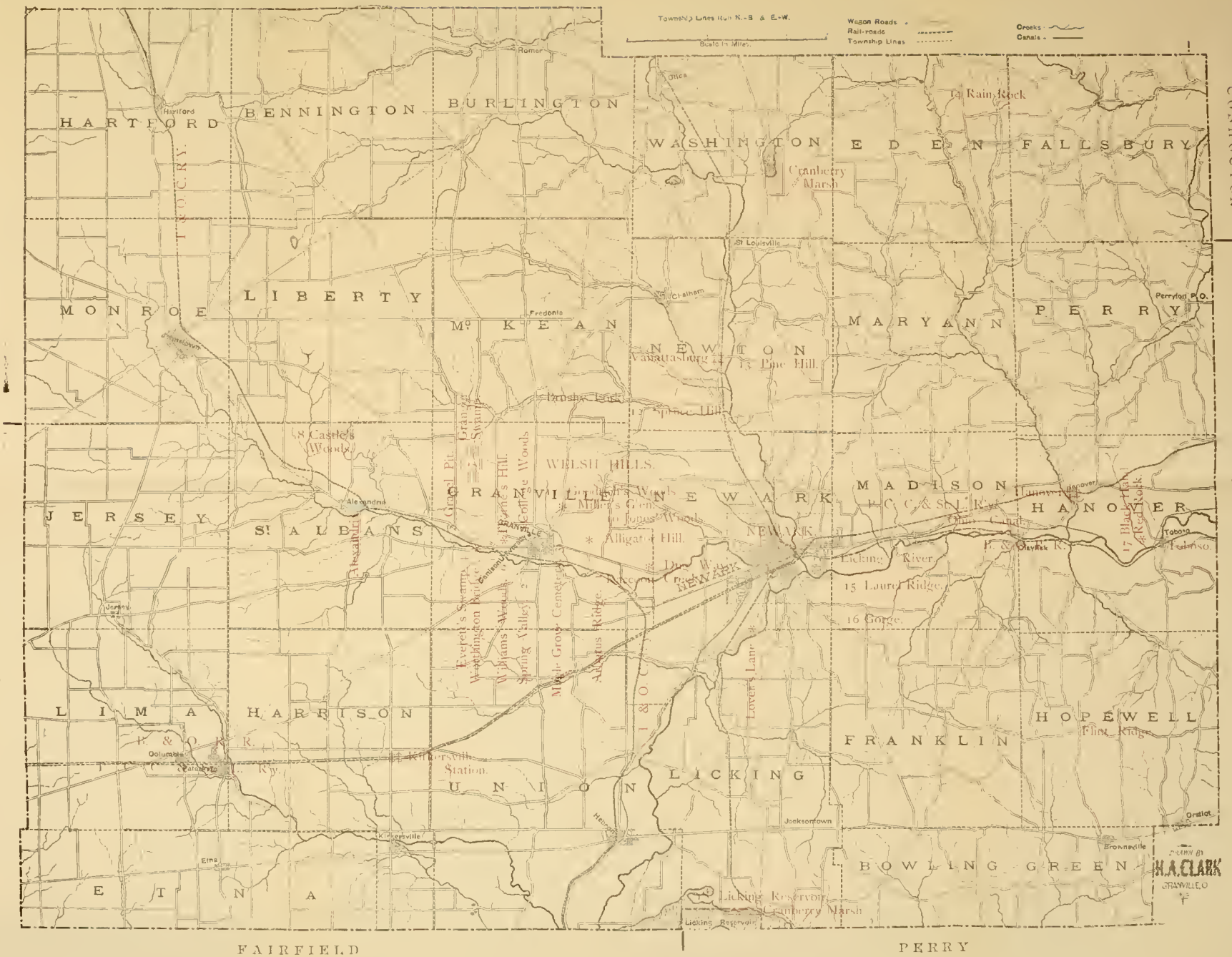
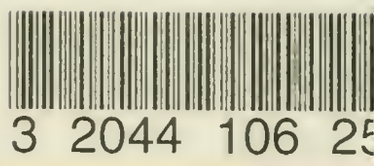


MAP OF LICKING COUNTY, OHIO.

GRANVILLE, OHIO.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